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Turning Advantage Into Victory in Chess

Emanuel Lasker, one of the world's greatest chess players, once said, "The hardest game to win is a won game." *Turning Advantage Into Victory in Chess* is targeted at players who tend to be ahead in the middlegame and the early endgame yet don't know the right moves to pull off a victory. To exploit an advantage, a player needs both technique and experience.

***TURNING ADVANTAGE INTO VICTORY IN CHESS* TEACHES INTERMEDIATE TO ADVANCED PLAYERS:**

- How to recognize a winning position
- When to give up part, or all, of a material edge to win
- How to determine the "mood" of an endgame based on the position of an opponent's pieces
- How to convert a two-pawn edge to victory, win most one-pawn positions, and even win with positions in which both players have the same number of pawns

Andrew Soltis, International Grandmaster and award-winning chess journalist, writes chess columns for the *New York Post* and *Chess Life* magazine. He is also the author of more than 30 chess books, including *The Inner Game of Chess* and *The Art of Defense in Chess*.

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Intermediate: Knows some openings and basic endgames; has some knowledge of strategy and tactics; may play in tournaments.

Advanced: Knows openings and endgames; understands strategy and tactics; probably plays in tournaments.

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ALGEBRAIC NOTATION

Andrew Soltis
International Grandmaster
Author of *The Inner Game of Chess*

Turning Advantage Into Victory in Chess

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Introduction

Let me begin with full disclosure: When I became a master I was still awful at winning a won game.

The vast majority of my games ended in the middlegame. I simply didn't trust myself in an ending. Even when I had an extra pawn or two I would avoid any invitation to trade queens. I had been disappointed too many times with winning positions that I had amassed by move 40—but which turned out to be dead draws by move 60 (if not by move 42).

You may have had the same experience. Winning technique is the hardest skill to master.

Why? I suggest it's because of the change in our thinking that comes about as we approach the endgame. You begin a game with confidence. The first dozen or so moves are almost scripted. You play 9 Bg5, for example, because you know that it's a good move that has worked well before, many, many times. Maybe you've played it yourself, or you saw it in a book.

Then the opening ends and you have to begin thinking on your own. If you could plot on a graph how much you are thinking for yourself, it would be an arc, slowly rising from about move ten on.

The arc continues at roughly the same angle as you enter the middlegame. You're no longer relying on "book" moves but you can follow well-trodden themes. You know that you should castle on the kingside (not queenside) in this kind of position, and that it's your queen rook that belongs at c1 (not the king rook).

The arc is still rising around move 20 as you depend on more generalized advice. You know to attack pawn chains at the base and to try to acquire the two bishops, and so on. As the game passes move 30 the arc is pretty high. You're banking more and more on general principles and calculation.

By the early endgame there is only the most abstract advice ("Passed pawns must be pushed" and "Rooks belong behind passed pawns") to guide you.

The arc keeps rising until you are almost on your own. There are still a few bits of advice to follow, but they're often contradictory.

If you're a pawn up, should you try to add a second? Or is it more important to trade pieces? And which pieces? Is this the kind of ending where you want to keep rooks on the board—or off? Should you absolutely avoid a bishop-of-opposite-color ending? What about pawns? Is there a difference between having a passed b-pawn and having a passed c-pawn?

And the money question is "What exactly does a winning endgame look like?" How do you know what to aim for—and what to do if you get it?

Even great players have trouble with that. In 2004 the world's No. 4-ranked player, Peter Svidler, resigned a high-profile game in a position that was hopelessly drawn. It wasn't the first time he had misjudged an ending that badly; Five years earlier Svidler offered a draw in a won position.

Recognizing what a winning position looks like—and negotiating your way through the top of the arc—is what this book is about. Winning technique is not a science, but neither is it a mystery. It's a skill that can be studied and developed just like any other in chess. It's the skill I worked on when I became a master. I eventually found the confidence to trade those queens—and that helped make me a grandmaster. Here's what I learned.

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CHAPTER 1

If I'm Winning, Why Can't I Finish Him Off?

"The rest is a matter of technique."

You've heard it often. You're playing over a game in some book or magazine and, after one side has amassed a material advantage, the annotator stops talking. The rest is easy, he says with a shrug. It's just a matter of technique.

This is the most abused and misused—and downright annoying—phrase in the language of chess. Abused because it implies technique doesn't really matter. It isn't worth looking at. Misused because technique is never as easy as advertised. "The hardest game to win is a won game" has been attributed to Emanuel Lasker, Frank Marshall, and dozens of strong players since them. And annoying because it's never used at a moment when the average player can understand why the rest is easy. Here's an example:

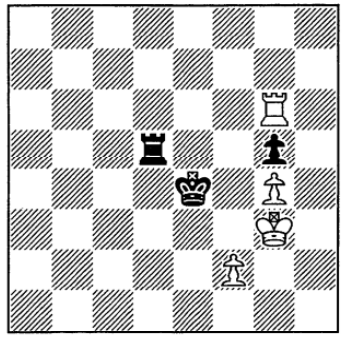

Diagram 1 Bruzón–Korchnoi, Hoogeveen 2001
White to play

1 Re6+!

One of those "little" moves that turns a game from being 70 percent won to 80 percent. The Black king would be cut off from the action after 1 ... Kd4 2 f4! gxf4+ 3 Kxf4. That means White's king

would be able to shepherd the remaining pawn to g7, at least, by force and reach a well-known "book win,"—the Lucena position. For example, 3 ... Rd8 4 g5 Kd5 5 Re1! (keeping the king cut off along the e-file) Rf8+ 6 Kg4 Rg8! 7 Kf5 Rf8+ 8 Kg6 Rg8+ 9 Kf6 Rf8+ 10 Kg7! and 11 g6.

1 ... Re5

The rest is easy, White wrote, and he gave no further comment.

2 Rxe5+ Kxe5

Well, it is fairly easy—for masters. But there are several ways for mere mortals to go wrong. Here, for example, White might fall for 3 f4+ gxf4+ 4 Kf3, after which he regains the pawn. Some computers, in fact, give 3 f4+?? as the best move. But it's a blunder, since Black can draw by keeping his king in front of the pawn (4 ... Ke6 5 Kxf4 Kf6—a "book draw").

3 Kf3 Kd4
4 Ke2 Ke4
5 f3+!

An important finesse that will win the opposition in two moves and make the win 90 percent certain.

5 ... Kd4
6 Kd2! Ke5
7 Ke3!

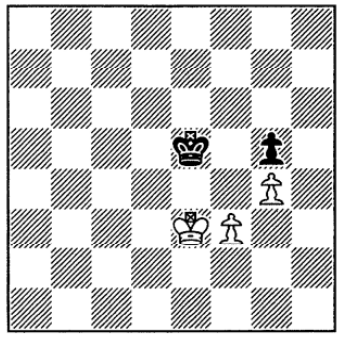

Diagram 2

Black cannot "pass" and therefore must allow f3–f4 under very different conditions than at move three.

7 ... Kd5
8 f4 Ke6
9 fxg5

White also wins with 9 f5+ Ke5 but he has to use finesses to push Black back (10 Kd3 Kd5 11 Kc3! Ke5 12 Kc4 Kf6 13 Kd4 and so on).

9 ... Kf7
10 Ke4 Kg6
11 Kf4 Kh7
12 Kf5 Kg7

We're up to 95 percent won, but that leaves five percent to go. White still needs a few subtle moves.

13 g6 Kh6

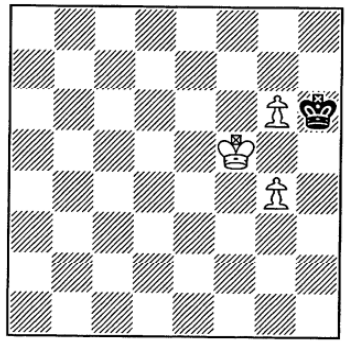

Diagram 3

14 g7! Kxg7
15 Kg5!

This position is not only a book win, meaning even the best defense fails, but also fairly easy to win. Yet, Black knew there were enough traps left to keep playing. In fact, three other grandmasters have played on as Black to see if White could find one last, necessary finesse:

15 ... Kh7
16 Kf6 Kh6
17 g5+ Kh7
18 Kf7 Kh8
19 Kg6! Resigns

You can't really blame the annotator. What he might have said after 1 Re6+! was: "The remaining moves are still pretty hard for the average player to find. But they are not nearly as difficult as the ones in the earlier part of the game, when the outcome was unclear. Here, with best play, White wins."

That's a mouthful. So, instead, annotators call positions like this "a matter of technique."

That's one reason players rarely study technique. It doesn't get respect. Good technique doesn't win world championships, the masters say, but poor technique does lose them. Here is an example:

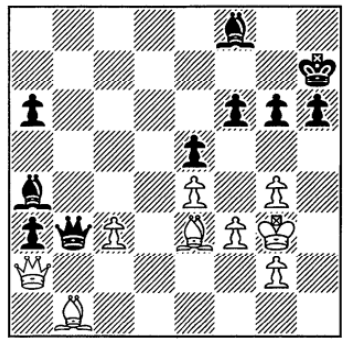

Diagram 4 Ponomariev–Ivanchuk, FIDE World Championship 2002
Black to play

Trailing by one point with four games to go in this championship match, Black could have tied the score if he had made his huge edge count. He has a reasonably free hand to do that. White must use his queen and bishop to stop the a-pawn and that means Black can trade queens when he wants. The question was when to trade.

1 ... Kg7??

Black had a plan: White appears so helpless that he couldn't stop Black from playing 2 ... a5, then 3 ... Qxa2, 4 ... Bc2, and finally 5 ... a4 and 6 ... Bb3!.

This is the most powerful form of technique: a simple plan that cannot be stopped. Such plans are often easy to execute—so easy that they can convince an opponent to lose hope when he realizes what you are doing.

He chose a simpler plan: ... Qxa2 and ... Be8–f7. But, Black had to add one minor precaution to the plan—1 ... Be7. The reason that was necessary was:

2 Qd2!

Suddenly White has counterplay because of Bxh6+ and/or a queen invasion along the d-file. For example 2 ... Qxb1 is met by 3 Bxh6+ Kg8 4 Qd5+! Kh8 5 Bxf8.

If Black had taken the precaution of 1 ... Be7, there would be no Bxf8 and White would lose.

2 ... g5

This stops Bxh6+ but White has freed his pieces.

3 Ba2 Qb7
4 Qd3

Black has lost control of the queenside (4 ... Bb3?? 5 Qb1 wins a piece) and has to start all over there.

4 ... Be8

His new idea is ... Bf7, to break the blockade at a2.

5 Qd5!

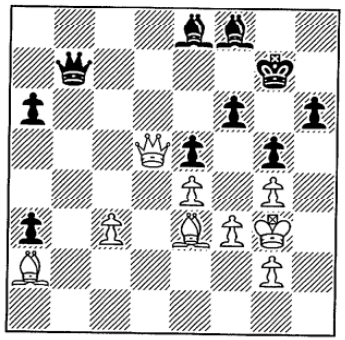

Diagram 5

This anticipates Black's plan and threatens Qg8 mate as well as Qxb7+. After the forced 5 ... Qxd5 6 exd5 White has real counterplay in the form of two connected, passed pawns.

Black is no longer winning. He finds himself on the defensive, and, unable to deal with the quick change in fortunes, he botched the remainder of the game (6 ... a5 7 c4 Bb4 8 c5 Kf8 9 Kf2 Bb5 10 c6 Ke7 11 Ba7 Kd8 12 Bb6+ Kc8? 13 Ke3 a4?? 14 Ke4 Be2 15 Kf5 e4 16 Ke6 exf3? 17 d6) and the game and title were lost.

MIDDLEGAME VERSUS ENDING

There are no great and mysterious secrets to winning technique. But there is one guideline that you can cast in stone: *Technique is fundamentally different from all other chess skills because instead of accumulating advantages, you are trying to exploit them.*

The contrast is striking; in the middlegame, aggressive moves such as checks and captures may get you the upper hand, but in the ending it is "quiet" moves—such as 1 ... Be7 followed by 2 ... Kg7 in the last example—that prepare the critical progress.

In the middlegame you seek major goals, such as the win of material or a mating attack. Trades are avoided unless they confer an edge. But, in the ending, the superior side benefits by trades. Mate is rare, and you realize an advantage more often by restricting enemy pieces than by capturing them.

The poor technician lives in the past—the middlegame—even after he reaches the endgame. He thinks the weight of his material advantage will win by itself.

The good technician knows that often you have to give up part, or all, of your material edge to win—as in this case, one of the most astonishing winning moves of the 20th century:

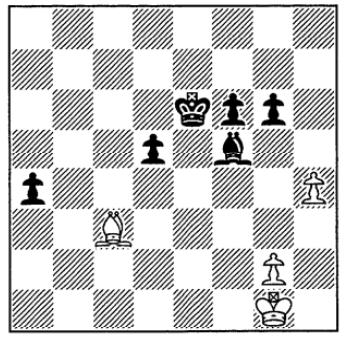

Diagram 6 Topalov–Shirov, Linares 1998
Black to play

Two pawns down, White might have been expected to resign. But a quick examination of winning tries shows it is anything but easy for Black. After 1 ... Bb1 2 Kf2 Kf5 3 Ke3 he isn't making progress on the kingside.

If he runs to the queenside, White establishes a rock-solid block-

ade (1 ... Be4 2 Kf2 f5 3 g3 Kd6 4 Ke3 Kc5 5 Be5 Kc4 6 Bf6 a3 7 Be5 a2 8 Bf6 Kb3 9 Kd2 or 7 ... Kb3 8 Kd2 Ka2 9 Kc1).

To win, Black must create a battle of White's bishop versus Black's king and a passed pawn (without the White king playing a role). This is a battle Black will win because, in endgames, two pieces usually beat one. Eventually the bishop will have to give itself up for the pawn.

1 ... Bh3!!

Once you realize that Black must be able to play ... Ke4 to win, this move makes perfect sense. White cannot ignore the sacrifice, e.g. 2 Kf2 Kf5 3 Kf3 and now 3 ... Bxg2+! 4 Ke3 g5 is a win because White's two pieces cannot stop three passed pawns.

That means 4 Kxg2 Ke4 and ... d4 is critical—but won for Black. He quickly promotes after 5 Bxf6 d4! 6 Be7 Kd3 7 Kf2 Kc2.

2 gxh3 Kf5
3 Kf2 Ke4

Now 4 Ke2 f5 or 4 ... a3 and Black again wins because he has three passed pawns facing two pieces.

For example, 4 ... a3 5 Kd2 d4 6 Ba1 f5 7 Ke2 f4 8 Kd2 f3 9 Ke1 Ke3 10 Kf1 f2 11 h5 gxh5 12 h4 d3 13 Bc3 a2.

4 Bxf6 d4

The a-pawn threatens to queen (5 Ke2 a3).

5 Be7 Kd3
6 Bc5 Kc4
7 Be7

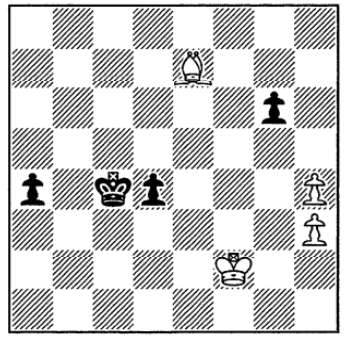

Diagram 7

7 ... Kb3! Resigns.

One of the pawns sails through (8 Bf6 d3 9 Ke3 Kc2 and 10 ... d2, or 8 Ke1 Kc2 followed by 9 ... d3 10 Bb4 a3! 11 Bxa3 d2+).

So much of good technique depends on queening that inexperienced players tend to become obsessed with pawns as the game nears an end. They want as many extra pawns as they can get, just in case they lose one or two.

But remember: *Your job in the endgame is to exploit your advantage.* Once you've got enough of a material edge to win, one of the easiest ways to spoil your chances is to take pawns you don't need. A good defender can often exploit this.

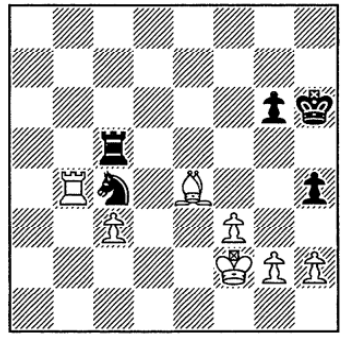

Diagram 8 Gelfand–Shirov, Munich 1993
Black to play

White has more than enough to win: two extra pawns—one of them passed—as well as the slightly better minor piece and a king that is closer to the passed pawn (Ke2–d3!).

1 ... h3!
2 gxh3??

White confessed after the game that he couldn't explain what "made me self-destruct my pawn structure."

With 2 g4! he keeps his pawns healthy and can always go after the h-pawn later. Play might continue 2 ... Nd2 3 Rd4! Nxe4+ 4 Rxe4 Rxc3 5 Kg3 and White will emerge three healthy pawns against one (after, say, Rf4 and Kxh3). In other words, a fairly easy win.

2 ... Nd2!

White counted on 2 ... Nd6, after which 3 Bb1 wins (3 ... Rxc3 4 Rb6).

But, after 2 ... Nd2 3 Ke3 Nxe4 4 fxe4 Rxc3+, the rook ending is much harder (perhaps drawn with best play) because of the bad h-pawns.

Instead, White tried to use the time Black will spend on capturing the c-pawn to improve the position of his pieces. But, after 3 Bd3 Rxc3 4 Rd4 Rc6 5 Ke3 Nb3 6 Rd5 Nc5, Black had stopped White's progress. They drew soon after 7 Bb5 Re6+ 8 Kf2 Nb7 9 h4 Nd6 10 Bd7 Rf6 11 Bg4 Ne8 12 h5 g5!.

BIG T (AND LITTLE T'S)

There are several myths about technique. One that you frequently hear from amateurs is: "Technique comes with experience." In other words, if you play chess long enough, you'll not only learn how to handle the King's Indian Defense and defend against a queenside attack and all the other difficult tasks of the opening and middlegame, but you'll also acquire—through some form of osmosis—a basic understanding of how to win a won game.

That's nonsense. There are guys I've known for 30 years who have no more appreciation of zugzwang or how to exploit a second endgame weakness than they did when they first played 1 e4.

A related myth is that technique is a kind of special insight that can't be studied. It only comes through some form of magical enlightenment.

Actually, what we can call Technique with a big "T" is just a collection of "little t" techniques—such as knowing how to trade and restrict enemy pieces, how to defuse or anticipate counterplay, how to visualize a winning plan, how to break into a fortress, and so on. The "little t" techniques can be learned just as readily as the first dozen moves of a Caro-Kann Defense.

Good technique is a mixture of "little t's", as well as of patience, calculation, book knowledge, endurance, and *judgment*. That last item is crucial.

Computers—with unlimited attention span, incomparable book knowledge, calculating ability, and endurance—can be awful technicians. What they often lack is the ability to evaluate.

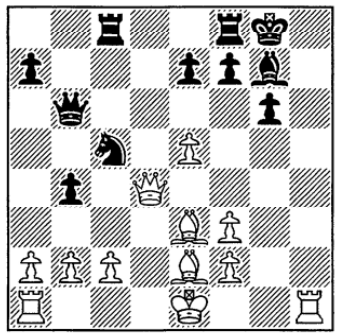

Diagram 9 Junior 6–Khalifman, Dortmund 2000
Black to play

Black is in desperate straits, a pawn down and facing a ferocious attack (1 ... Rfd8 2 Qh4 Qe6? 3 Qh7+ Kf8 4 Bh6 and wins). He went for broke:

1 ... g5!?

This should lose in a variety of ways, such as 2 Rh5 and Rxg5 (2 ... Rfd8 3 Qg4). But it is inspired psychology—and psychology can work against a machine.

2 Bxg5?? Ne6!

Black avoids mate (3 Qh4 Nxg5) and prompts an endgame, which the computer misjudges.

3 Qxb6 axb6
4 Bxe7 Rfe8
5 Bd6 Nd4
6 Bd3

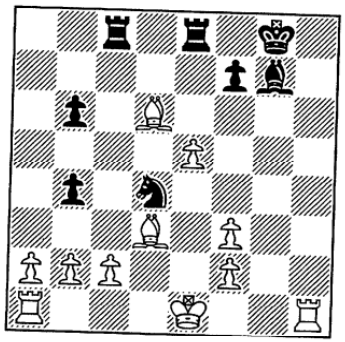

Diagram 10

White has three extra pawns and will keep at least one because on 6 ... Nxf3+ 7 Ke2! or 6 ... Nxc2+ 7 Kd2 he threatens 8 Bh7+ followed by Bf5+ and Bxc8.

However, after...

6 ... Bxe5!
7 0-0-0 Bxd6
8 Bh7+ Kf8
9 Rxd4 Bc5

...it's not nearly enough to win. White's doubled pawns are almost useless if he can't win Black's f-pawn. But, Black's doubled pawns will discourage the creation of a White passed pawn on the queenside. Add in the presence of bishops of opposite color, and White faces an impossible task.

The computer went through the motions (10 Rg4 Ke7 11 Re1+ Kd6 12 Rd1+ Kc7 13 Bd3 Rcd8 14 Rf1 Rd4). But after another 30-plus moves, the machine's human operators conceded a draw.

Humans use other assets that machines do not, such as logic. This is clear in the next example, from a last-round game that

won a $25,000 first prize and the title of U.S. Champion. White's material advantage is obvious, and this is where a grandmaster annotating the game said—as expected—"The rest is a matter of technique."

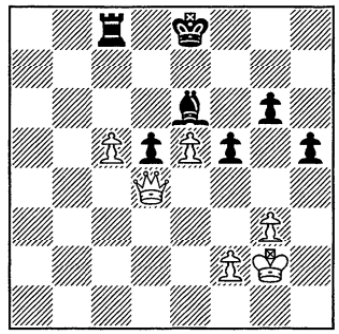

Diagram 11 Shabalov–Akobian, U.S. Championship 2003
White to play

But how exactly does White win? After all, Black's pieces can block the c-pawn.

White won by using logic: He realized that no matter how strong his queen was, he also needed to use his king to win. He saw that Black's weakest points are on dark squares, therefore they must be the most vulnerable invasion routes for White's king. White's only other assets were the two passed pawns so they had to become part of a winning plan.

Once he thought that way, the next few moves were easy to find.

1 f4! Ke7
2 Qb4 Rc6
3 Kh3

Thanks to 1 f4, Black cannot bar the king with ... g5.

3 ... Bd7
4 Kh4 Kf7
5 Kg5 Ke7
6 Qb3!

This short-circuits Black's defenses, since 6 ... Ke6 allows 7 Kxg6.

6 ... Re6
7 Qxd5 Bc6
8 Qa2 Bd7
9 Kh6!

White is playing "without an opponent." He has an almost completely free hand. That allows him to foresee a winning arrangement of pieces: king on g7 and queen on the h4–d8 diagonal.

This is visualization, an important "little t" technique. Computers deal in specific variations. Humans, when playing without an opponent, can think this way—in ideal terms.

9 ... Be8
10 Kg7 Bd7
11 Qh2! Rc6
12 Qh4+ Ke8

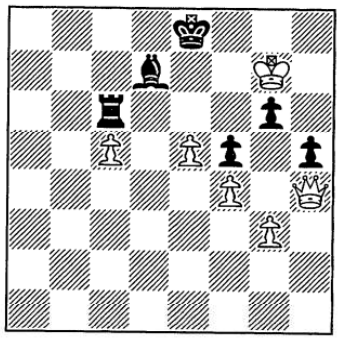

Diagram 12

13 Qf6!

This was the only way to use all of White's assets: the queen, king, and two passed pawns. The sacrifice required calculation, of course. But, the hard part came earlier when White worked out a plan logically and then visualized a position that would make it work.

13 ... Rxf6
14 exf6 Be6

Otherwise the f-pawn queens. White played 15 c6 and Black saw that he couldn't stop both of the passed pawns (15 ... Bf7 16 c7). So he tried the desperate 15 ... g5 16 fxg5 f4 and resigned after 17 g6 fxg3 18 f7+.

TECHNIQUE AND CHOICE

Another myth holds that there is one and only one way of winning a typical position. In fact, the good technician knows there is usually a choice.

Some ways are faster or simpler (or just easier to handle) than others.

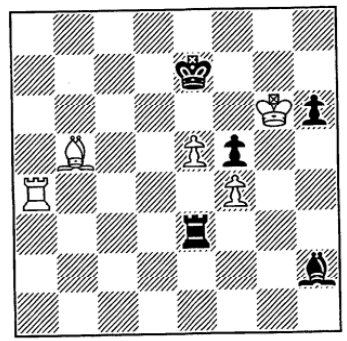

Diagram 13 Almási–Delchev, Hungary 2001
Black to play

White has the edge thanks to his well-placed king and superior pawns. But they are, after all, his last pawns. Whenever you get down to your final pawn or two you should be very careful, because the lack of a pawn to promote is the most common reason for drawing a won endgame.

1 .... Re4?

Black had the first choice. He could have reached a book draw with 1 ... Bxf4! 2 Rxf4 Rxe5, eliminating both White pawns. That should be a draw because even after White captures Black's two pawns, Black can hold the resulting rook-and-bishop versus rook ending if both sides play the best moves.

But there's a problem there: It's a lot easier to find "best" moves when you have the bishop in that notorious ending than when you don't.

Instead, Black forced a bishops of opposite color ending, which has a reputation for being nearly as drawish as the rook ending.

2 Rxe4

Black was wrong. White's reply wins, yet, it is the third-best move.

White could have ended matters immediately with 2 Ra8!, threatening 3 Re8 mate. If 2 ... Ke6 then 3 Bc6! seals the king's escape and Black's fate.

There's a second win but it takes at least ten moves more: With 2 Kxf5 Rxa4 3 Bxa4 Black's only hope is to give up the bishop for both pawns. For example, 3 ... Bg3 4 Ke4 Bh4 5 f5 Kf7 and now 6 f6?? Bxf6 draws. But, 6 Bb3+ Ke7 7 Kf4 Bg5+ 8 Kg4 wins, since after the Bishop moves Black cannot stop 9 f6+ followed by Kf5 and e5-e6-e7.

2 ... fxe4
3 Kf5 e3
4 Be2 Bg3
5 Ke4

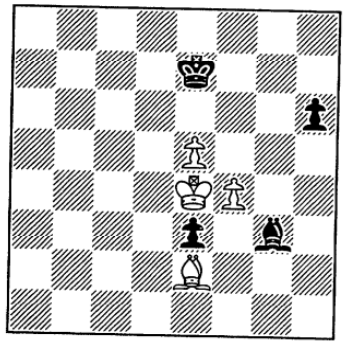

Diagram 14

Even though material is equal, this is also a win. If Black tries to hold onto his pawns, White wins as in the previous note (5 ... Bf2 6 f5 Bg1 7 f6+ Ke6 8 Bc4+ Kd7 9 e6+ and 10 e7).

The game ended with 5 ... h5 6 Bxh5 Be1 7 Kxe3 Ba5 8 f5 Be1 9 f6+ Ke6 10 Ke4 Bb4 11 Bg4+ Kf7 12 Kf5 Resigns.

White chose the third option but it still won.

As Garry Kasparov put it, chess "is more music than mathematics. In mathematics there is only one answer. You can reach the answer in many ways but you still only have one answer. In chess there are many answers."

That's a big plus for the technician. He doesn't have to play the perfect move every time. He often gets a chance to play the practical move, the one he's most comfortable with.

TECHNIQUE AND "BOOK"

A typical chess game begins and ends with book knowledge. In the opening it's hard to be original and still survive until the middlegame. But in the endgame, how much book you remember will only determine how hard you have to work.

Book knowledge is not the only route to victory; it's just a shortcut. Even if you didn't know how to mate with king and rook versus king, for example, you should be able to figure it out at the board. Here's an example of how advanced book knowledge can be.

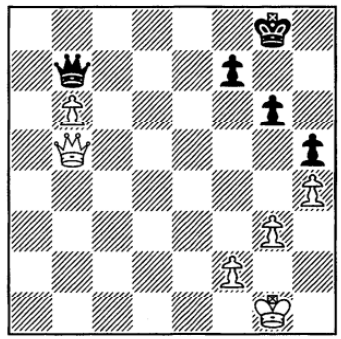

Diagram 15 Mohr–Minasian, Olympiad 1996
White to move

While White was thinking, his teammate Alexander Belyavsky studied the position. At that point another grandmaster, Alex Yermolinsky, approached Belyavsky and asked, "Is it possible your guy doesn't know the winning plan in such positions?"

Yermolinsky, like Belyavsky, grew up studying these situations in the Soviet Union. He added, just in case Belyavsky had forgotten, "The king has to stay at g1 and the queen at b4. Then at the right moment, when the king goes to h7, you play Qa5 and Qa7."

He was right. After 1 Qb4! Kh7 the f7 pawn has lost its king support so 2 Qa5 wins. For example, 2 ... Qf3 3 Qa7 Qd1+ 4 Kh2 Qf3 5 b7, and the queen protects f2. Black has no good moves after 1 Qb4 because a queen move allows 2 b7 and another king move allows 2 Qc3+! and 3 Qc7.

All true. But that's not the only way to win. It's simply the book way.

After some thought, White played 1 Qe8+ Kh7 2 Qd8 Qe4 3 Qc7 and realized after 3 ... Qe1+ 4 Kg2 Qe4+ 5 Kh2 Qf3 that he had to start over again with 6 Qf4 Qd5 7 Qb4 Qb7 8 Kg1.

He eventually found a way to advance his king to c7, pushed the pawn to b7 and forced resignation—36 moves later.

In other words, sometimes you can achieve the same results by relying on book knowledge, or calculating, or visualization, or intuition, or a variety of other skills (although not equally efficiently).

But whatever you rely on, there is one ultimate warning: *You can't relax.*

There's a natural tendency to feel, at some point late in the game such as after you've captured a second or third extra pawn, that the rest has to be easy. It may be easier than what went before, but that's not enough reason to let down your guard. The endgame is just too tricky for that.

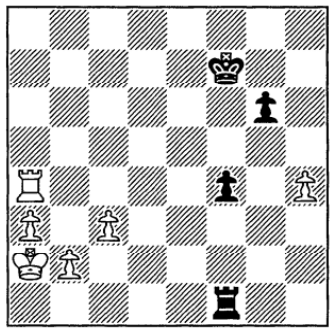

Diagram 16 Kasparov–Ye Jiangchuan, Olympiad 2002
White to play

After an exceptionally hard-fought middlegame and early endgame, Kasparov had just won a second extra pawn. He needed to seal the point to help his team. He also knew that, as one of the greatest players in history, every move of his would be dissected and analyzed until the 22nd century.

1 c4??

Yet, he blundered. The general rule is to *push the passed pawn that is farthest away from the defender*. Since White's rook is in the way of his a-pawn, the pawn to push was the b-pawn—1 b4!, which would have won quickly, e.g. 1 ... Ke6 2 b5 f3 3 Rf4 Kd6 4 a4.

1 ... Ke6!

White could stop Black's next move with 2 Ra5, but then 2 ... f3 puts White in jeopardy of losing.

2 c5 Kd5

Black has caught up with the pawn and can draw.

3 Ra6 Ke5??

But, he blundered too. After 3 ... Kxc5 4 Rxg6 f3! 5 Rf6 Kd4 he just manages to hold, e.g. 6 a4 Ke3 7 a5 Rh1 8 b4 Rxh4! 9 Kb3 f2, threatening to win with 10 ... Rf4!.

After 3 ... Ke5?? White's king was able to shepherd the queenside pawns and he won comfortably after 4 Rxg6 f3 5 Rg8 Ke4 6 b4 Rc1 7 Kb2 Rc4 8 Kb3 Rc1 9 h5.

But Black didn't resign until the bitter end, when White had four passed pawns charging up the board and at least two of them were bound to promote.

Only then was it just "a matter of technique."

CHAPTER 2

Simplify, Simplify

The first step to winning a won game is to simplify. This usually means trading queens. In some rarer cases it means exchanging almost everything but queens. Whatever the situation, it marks the boundary between two phases of the game—the stage in which you seek an advantage and the one in which you try to turn that edge ultimately into checkmate.

In the earlier phase you amass different assets. They can be solid like an extra pawn, or merely potential like doubled rooks on a file or "queenside pressure." They can be static, like a superior pawn structure, or temporary, like the initiative.

But after the trade of queens, your priorities are quite different. You want to cash in: to transform those advantages—material, positional, whatever—into a harder currency. For example, an outside passed pawn is no longer just a theoretical advantage, it can become a queen—quickly.

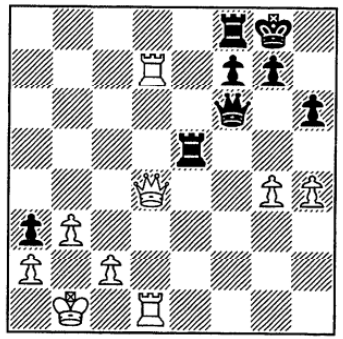

Diagram 17 Kulaots–Solozhenkin, Sweden 2003
White to play

1 Rd8!

There was no reason to delay. By forcing a trade of queens and rooks, White transforms his passed pawns into a pair of killers.

1 ... Rxd8
2 Qxd8+ Qxd8
3 Rxd8+ Kh7
4 c4!

"Passed pawns must be pushed" is a cliché, but, like many chess clichés, it is generally true. Black can safely resign if he allows, for example, 5 b4 and 6 b5.

4 ... Re4

The pawns also decide after 4 ... Re1+ 5 Kc2 Ra1 6 c5 Rxa2+ 7 Kc3.

5 c5! Rxg4
6 c6

It looks like White will queen by force in two or three moves. But, Black has a trick.

6 ... Rg1+
7 Kc2 Rg6!

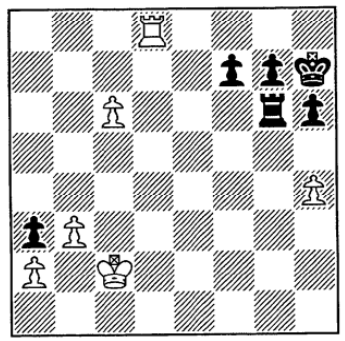

Diagram 18

8 Rc8

White sees 8 c7?? Rc6+. Black's finesse will slow White down, but only by a bit. Now it's the b-pawn that has the clearest path to the eighth rank.

8 ... Re6

If it gets to be a pawn race, 8 ... f5 9 b4 f4 10 b5 f3, White wins with 10 Rf8!. That's because the pawn ending (10 ... Rf6 11 Rxf6 gxf6 12 Kd3 and 13 c7) is trivially easy.

9 b4 g5
10 hxg5 hxg5
11 b5 g4
12 b6 Resigns

More complex are the cases when a player has a variety of positional (rather than material) advantages and decides it is time to convert them into something more solid. Trading queens remains a priority. It's just a matter of when.

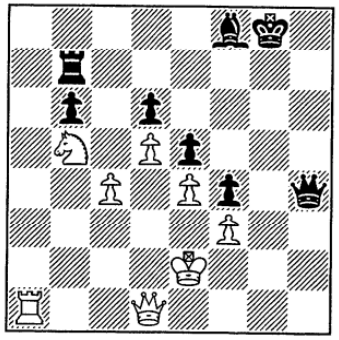

Diagram 19 Kosteniuk–Paehtz, Lausanne 2003
White to play

1 Qh1!

White's positional edge is huge—once the queens leave the board.

1 ... Qxh1?

Black may not have liked passive positions for his pieces such as after 1 ... Qf6 2 Ra7 Rg7 3 Qh3, but that was the only chance.

2 Rxh1 Be7

White's rook was going to dominate one way or the other, e.g. 2 Rg7 3 Kf2 and Ra1 or Rh6.

3 Ra1! Rd7
4 Ra8+ Kf7
5 Rc8 Bd8
6 Rc6 Ke7

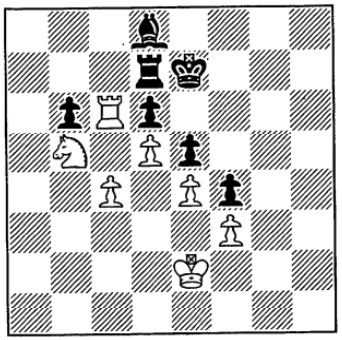

Diagram 20

7 Kd3! Resigns

Black is in zugzwang. Translation: he loses because he must move, and anything he does move will break down his defenses and cost at least a pawn.

It's such an important axiom that *the superior side should trade queens* that we often forget how great the benefits are. A queen trade not only ends the prospect of middlegame shocks—such as enemy counterattacks—it considerably increases the ways of converting an edge in the endgame. In other words, it increases the numbers of ways to win while reducing the number of ways to not win.

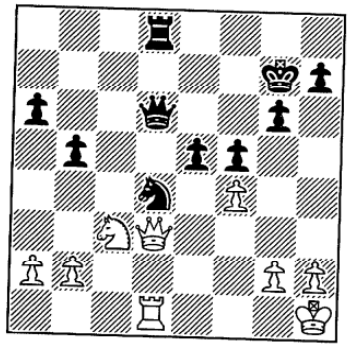

Diagram 21 Almási–Ivanchuk, Polanica Zdroj 2000
Black to move

A pawn up, Black has good reason to expect to win. But, first he must deal with the pin on the d-file (1 ... exf4? 2 Ne2).

He can do that with 1 ... e4 2 Qe3 Qf6 and ... Ne6 followed by trading heavy pieces and bringing his king to the center or queenside. Depending on how well White creates obstacles, the game may last 30 more moves. But, there's a much faster alternative.

1 ... b4!
2 Ne2 Nb5!

Now it's White who has a problem on the d-file (3 Qc2?? Qxd1+). To avoid material loss he plays...

3 Qxd6 Rxd6

... and avoids 4 Re1 Rd2! ...

4 Rxd6 Nxd6
5 fxe5 Nc4

... as well as the creation of a possible passed pawn on the queenside (6 Nd4 Nxb2).

6 b3 Nxe5

White had to allow this knight ending.

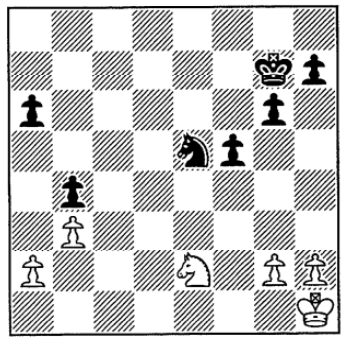

Diagram 22

True, a swap of pawns is usually good for the defender. But, Black's remaining pieces are so well placed that he makes swift progress, and there are plenty of pawns remaining for the required promotion.

7 Nf4

An illustration of White's problems is 7 Kg1 Nd3!, which stops his king from getting involved and allows Black to meet any knight move with ... Nc1xa2.

7 ... a5
8 h4 Kf6

Black's simplest winning plan consists of tying White's pieces to the kingside, where they must try to stop the creation of a passed pawn, while Black cleans up on the other wing with ... N-move and Ke5-d4-c3-b2.

9 Kg1 Ng4!

For example, 10 Kf1 Ke5 11 Nd3+ Kd4 12 Ke2 Ne5 13 Nf4 Kc3.

10 Nd3

Black stops 10 ... Ke5 and tries to discourage 10 ... Ke6.

10 ... Ke6!

He plays this anyway. Black's position is so good he has a choice of strong moves. He could have opted instead for the kingside plan of ... h6, ... g5, ... f4, and ... Kf5. This is more forcing.

11 Nc5+ Kd6

Black sees a way of reaching a pawn endgame and, after a bit of calculation, prefers that to 11 ... Kd5 12 Nb7 Ne5 and ... Nd3-c1xa2.

12 Nb7+

If White tries to defend with 12 Nd3 Kd5 13 Kf1 Black's pieces take commanding squares with 13 ... Ne3+ 14 Kf2 Nd1+ 15 Kf3 Nc3 16 Nc1 Kd4.

Then White's only way to offset the creation of a passed kingside pawn is 17 g4. But, Black breaks through on the queenside with 17 ... fxg4+ 18 Kxg4 Ke3 and ... Kd2.

This is the most common theme of technique: Switching to another wing—and winning there—once the defender has stopped you on the first wing.

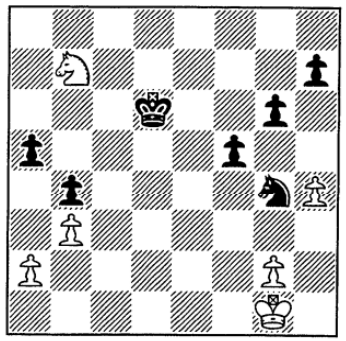

Diagram 23

12 ... Kc7!
Resigns

White gives up because his knight is cut off after 13 Nxa5 Ne5!, and he must lose the pawn ending (14 Kf1 Kb6 15 Nc4+ Nxc4 16 bxc4 Kc5 17 Ke2 Kxc4 18 Kd2 f4 etc.).

We'll examine the nature of exchanges further in Chapter Four,

but it's worth noting here how a queen trade fits into a highly beneficial chain: Each swap of pieces can be progress—even when it appears to ease the pressure on the defender.

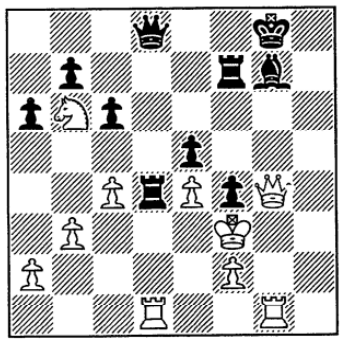

Diagram 24 Vaganian–Quinteros, Lucerne 1985
White to play

Material is equal, but White holds the positional aces. He controls key light squares and his knight should be superior to Black's bad bishop. Black seems to have counterchances because of White's insecure king. However, it's quite a simple matter for White to get from the complexity of this ...

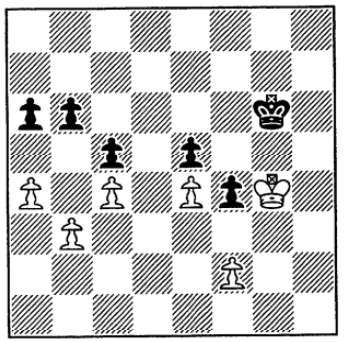

Diagram 25

... to this. White will win a pawn through zugzwang, as we'll see. *An extra pawn in a king and pawn endgame is almost always enough to win the game and this position is no exception.*

But the main point here is that getting from Point A to Point B is just a matter of timely exchanges. White's first step in Diagram 24 was to neutralize the pressure on the d-file.

1 Qc8!

White can now meet 1 ... Rxd1 with 2 Rxd1 Qxc8 3 Nxc8 and he would be close to winning after 3 ... Bf6 4 Nd6 Rd7 5 Kg4 and 6 Kf5.

1 ... Qxc8
2 Nxc8 Rfd7
3 Rxd4 Rxd4

Careful defense by Black has averted immediate collapse but there is a another way for White to make progress: more trades.

4 Ne7+ Kf8
5 Nf5 Rd3+!

Driving the king back because 6 Kg4? Bf6 is hard to win.

6 Ke2! Rd7
7 Rxg7!

White converts his terrific knight into a superior king position after 7 ... Rxg7 8 Nxg7 Kxg7 9 Kf3. He would win, for example, after 9 ... Kf6 10 Kg4 Kg6 11 c5! because Black runs out of moves and must allow White's king to advance (11 ... a5 12 a3 Kf6 13 Kh5 Kf7 14 Kg5 Ke6 15 Kg6).

In the game, Black conceded the opposition immediately with 9 ... Kg6 10 Kg4 c5 and ran out of moves after 11 a3! b6 12 a4!, reaching Diagram 25. Then 12 ... a5 13 f3! Kf6 14 Kh5 Kf7 15 Kg5 wins.

Black resigned following 12 ... f3 13 Kxf3 Kh5 14 Kg3 Kg5 15 f3! a5 16 f4+! because of 16 ... exf4+ 17 Kf3 Kg6 18 Kxf4 Kf6 19 e5+ Ke6 20 Ke4 Ke7 21 Kd5 Kd7 22 e6+ Ke7 23 Kc6.

WHEN SIMPLIFYING BOOMERANGS

Now for the bad news. Trading queens won't win a game by itself. In many cases the trade should be delayed, even if you are ahead in material. It's not just how much you're ahead that matters, but also which pieces remain on the board.

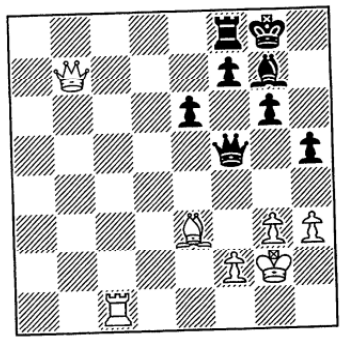

Diagram 26 Andersson–Timman, Ubeda 1997
Black to play

White's pieces are fairly active and Black's extra pawn is on the kingside—two factors that make creation of a good passed pawn for promotion very difficult. Black's best bet may be to stay in the middlegame with 1 ... e5, retaining the prospect of ... e4 followed by ... h4 or getting the queen to f3. His winning chances would be slim. But, at least they would be chances, which is something to work with.

1 ... Qd5+?

This is logical. Black eliminates White's well-placed queen and creates a passed pawn.

2 Qxd5 exd5

And it is based on good tactics, since 3 Rd1 walks into 3 ... d4 4 Bxd4? Rd8.

3 Rc7!

But the attack from behind (4 Rd7) succeeds because the natural 3 ... Rd8 allows 4 Bg5 f6 (4 ... Rd6 5 Be7) 5 Bd2 and then 5 ... d4 6 Kf3 f5 7 Bg5 Rd5 8 Ke2 and Kd3. Black's king would have a difficult time taking part because 4 ... f6 shredded his second-rank protection.

3 ... Bf6

4 Rd7!

In general when there are four pawns against three pawns left on the board, and all are more or less on one wing, the winning chances depend on which pieces remain.

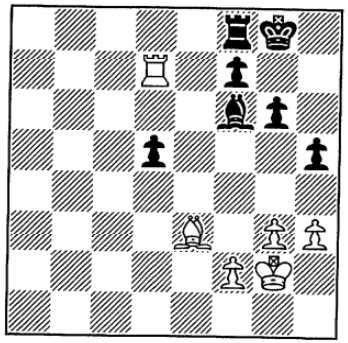

Diagram 27

Consider just the pawn structure here.

If this were a pawn ending, that is, with the rooks and bishops traded off, Black wins. Both players would bring their kings to the center, but eventually White would have to give way because of zugzwang or because he has to stop the d-pawn, while Black's king raids the kingside and creates a more queenable passer there.

If this were a knight ending, that is, if the only pieces on the board besides kings were a knight for each side, Black would probably win. The technique would be similar to that for the pawn ending. In fact, there is an old saying, "A knight ending is a pawn ending."

If this were a queen ending, Black would have very good winning chances—particularly because he already has a passed pawn and doesn't have to exchange another pair of pawns to create one.

If this were a rook ending, Black would have some chances but a draw is likely with best play. The phrase "best play" is key here because there are many notorious examples of even a grandmaster losing a "four-versus-three" rook endgame in which all the pawns are on one side of the board. Garry Kasparov lost one in 2000 when he had the "three"—and nearly beat Vladimir Kramnik in their world championship match of 2000 when he had the "four."

4 ... Rd8
5 Rxd8+ Bxd8

Finally, there is the case of bishops. With bishops of opposite color, it's not only a draw with best play but with even highly mediocre defense. With bishops of the same color, as is the case here, it's relatively easy to draw because the extra pawn can be blockaded.

6 Kf3 Kf8
7 g4 Ke7
8 Bd4 Ke6
9 Ke3 Bf6
Draw

Black cannot make headway after, say, 10 Bc5 Bh4 11 Kf4.

MIDDLEGAME VERSUS ENDGAME

Whenever the possibility of a queen trade arises, you have to evaluate two futures: 1) the chances of winning the endgame if you swap, and 2) the chances of a knockout in the middlegame if you don't. Some middlegames are much too good to be wasted by "queen takes queen."

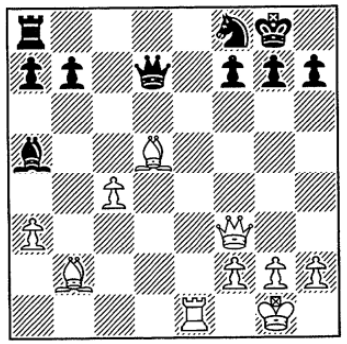

Diagram 28 Shamkovich–Simagin, Moscow 1966
White to play

White's powerful bishops and his control of the e-file are enough of a hint that he should be winning. But how?

There is great temptation to play 1 Qxf7+ Qxf7 2 Re7. It seems Black must reply 2 ... Qxd5, but that fails immediately to 3 Rxg7+ and 4 Rg6+ eventually mates. Yet, as he studied the position, White saw 2 ... Ne6! and then 3 Bxe6 Qxe6 4 Rxe6. Black then should draw with 4 ... Rd8! (5 g4 Rd2). White correctly resisted the urge to be brilliant.

1 Re4!

This threatens 2 Qe3 (followed by 3 Re7 or 3 Qd4) and 2 Rg4 Ng6 3 h4 with a winning attack in either case. Black replied:

1 ... Re8?
2 Qxf7+! Resigns

In evaluating less dynamic positions, you should place a great deal of emphasis on the activity of your opponent's pieces. If they are fairly passive, you can afford to take your time and improve your position in small ways. The opportunity to trade queens will inevitably arise at a later point—if the defender doesn't self-destruct first.

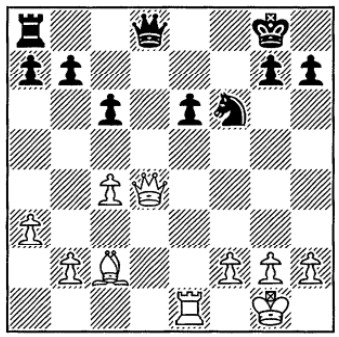

Diagram 29 Kasparov–Huebner, Brussels 1986
White to play

White has just traded pieces on e6. His positional edge is obvious, and there are sound reasons to cash in immediately. But, 1 Qxd8+? Rxd8 2 Rxe6 Rd2! clearly isn't the way.

1 Qe3 Kh8
2 h3!

White makes important improvements (luft for his king) and voids 2 Qxe6 Qd4, which gives Black play.

2 ... Qd7
3 g4!

This adds a new way to win; White can drive the knight from f6 by means of g4-g5 and then threaten mate on h7. Also, White's king can go to g2 and be closer to playing a role in the ending.

3 ... Re8
4 Qe5

White could also have gone for the kill with 4 g5 Nh5 5 g6. But, he prefers to improve his position slowly since he can add pressure to the e-pawn at virtually any time with Rd1-d6.

4 ... Qd8
5 Kg2 Qb6

Black can't find a good way to use his queen (5 ... Qd2 6 Re2, or 5 ... Qe7 6 Bf5).

6 Rd1 c5

As often happens, a bid for counterplay (... Qc6+) shortens resistance.

7 Ba4! Rf8

White finally wins the e-pawn but under the most favorable circumstances (7... Re7? 8 Qb8+ wins).

8 Rd6 Qc7

Black's dreams come true after 9 Qxe6?? Ne4!.

9 Rxe6!

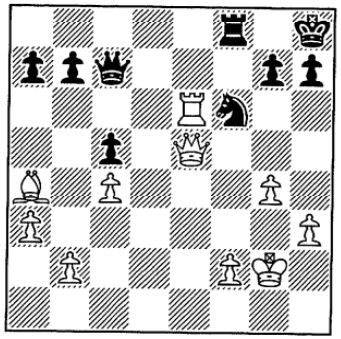

Diagram 30

Compare 9 ... Qxe5 10 Rxe5 with the endgame White could have had in Diagram 29. Here there is no Black counterplay and in fact he will lose another pawn (e.g. 10 ... b6 11 Re7 a5 12 Bc6! stops ... Ne4 and prepares Rb7xb6.)

9 ... Qf7

This counterattack allows a pretty finish.

10 Qxc5! Nxg4

Desperation. White could win eventually with 11 hxg4 Qf3+ 12 Kf1. But, one final simplification saves time.

11 Qxf8+! Qxf8
12 hxg4 Resigns

White will be a piece ahead after 13 Re8.

Between the extremes—when trading queens is bad and when it is good—there is a more common situation in which the technician has a choice of two apparent ways to win: with a queen trade and without.

This recalls the old saying that Soviet-era teachers used to repeat over and over to their young students: "If you have a choice between a mate and winning the queen, take the queen." The reason is that the mate might not really be there. But, a queen is a queen. It's money in the bank.

This is, of course, an exaggeration but you will often see strong players pass up apparently winning middlegame moves because they see a less risky or complex way to win in the ending.

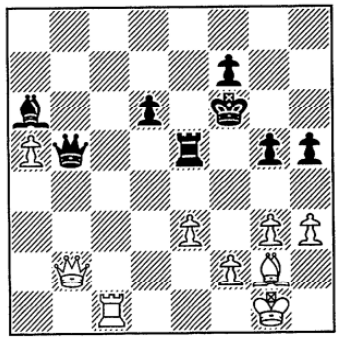

Diagram 31 Istrătescu–Nevednichy, Romanian Championship 1999
White to play

White has such a promising position he can choose between going for the knockout with 1 Qd4, which threatens 2 f4, or entering an endgame with a solid extra pawn.

1 Qxb5

In fact, this is second best. The strongest was 1 Qd4!, but that would require a bit of calculation (for example, to see that 1 ... Ke7 fails to 2 Rc7+! Ke6 3 Rc6).

Second-best moves, like 1 Qxb5, are often good practical choices because they are easier to evaluate and calculate. It was fairly simple to see here that 1 ... Bxb5 2 Bb7! clears a path for the a-pawn and wins material.

What clinched White's decision was the realization that Black will soon be without counterplay (even out of useful moves) after 1 Qxb5.

1 ... Rxb5
2 Ra1!

This threatens to win material with 3 Bf1. Black must find a new blockade.

2 ... Rc5
3 Bf1 Rc6

Worse is 3 ... Bb7 4 a6 Ba8 5 Bg2! (5 ... d5 6 Rb1 Ra5 7 Bf1 and Rb8).

4 Bxa6 Rxa6

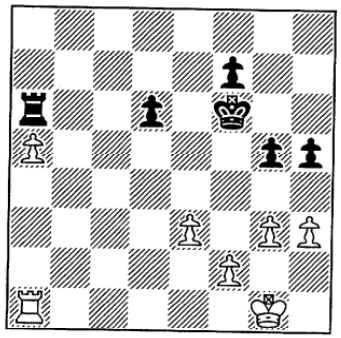

Diagram 32

White may have seen this far when he traded queens. It may look difficult. After all, how does White promote the a-pawn? What does he do about Black's active king (... Ke5)?

But this is the kind of position that masters readily seek out because they sense it is very close to a forced win.

5 Kf1 Ke5
6 Ke2

There are two promising plans: White can break the blockade (that is, by getting his king to b5, forcing the rook backward and pushing the a-pawn), or he can raid the kingside (6 ... Kd5 7 Kd3 Kc5 8 Ke4! and Kf5 must win).

6 ... f5
7 f4+! gxf4
8 gxf4+ Kd5

Black's king is active after 8 ... Ke4??—too active, in fact, because of 9 Rd1! and 10 Rd4 mate.

9 Kd3 h4

Black has run out of useful moves.

10 Ra3!

Also winning is 10 Ra2 but White wanted to make sure his e-pawn is protected in case Black tries for ... Ke4xe3.

10 ... Kc5
11 Kc3 Kd5

Or 11 ... Kb5 12 Kd4! Kb4 13 Ra1 and Kd5.

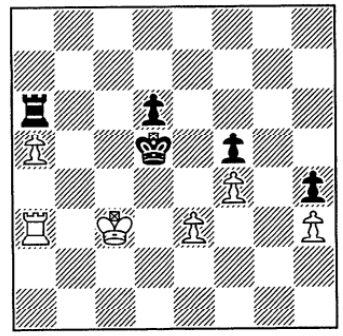

Diagram 33

12 Kb4!

Black cannot stop the pawn (12 ... Kc6 13 Rc3+ and 14 Kb5) and his own king raid failed after 12 ... Ra8 13 a6 Ke4 14 Kb5 d5 (or 14 ... Kf3 15 Kb6 Kg2 16 a7) 15 Kb6 d4 16 exd4 Kxf4 17 a7 and Kb7.

White won after all. Yes, 1 Qd4! would have saved time. A computer would have found it quickly. But, White's choice, while second-best, was good enough. And at the end of the day, that's all that matters.

QUIZ

We'll end each of the subsequent chapters with quiz positions to test your understanding of the new material. The solutions can be found beginning on Page 263.

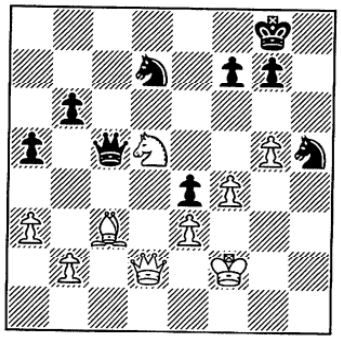

Diagram 34 M. Gurevich–Davies, Germany 1999
White to play

How should White continue?

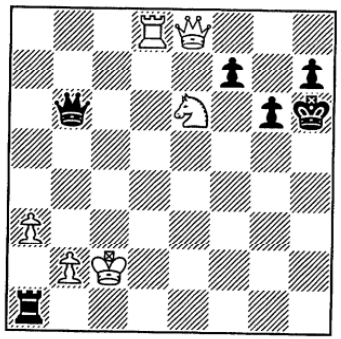

Diagram 35 Petrosian–Taimanov, Soviet Championship 1957
Black to play

Evaluate 1 ... Qxe6 2 Qxe6. White wins, Black wins or draw?

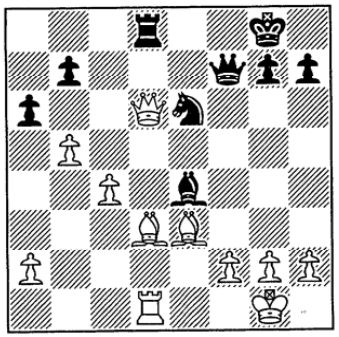

Diagram 36 Geller–A. Petrosian, Riga 1985
White to play

Black has just played ... Rd8. Is there anything better than 1 Qa3 ?

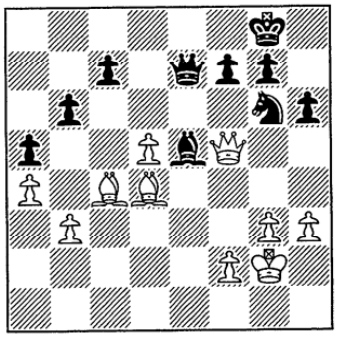

Diagram 37 Fritz–Morozevich, Frankfurt 2000
White to play

Black has just blundered with .... Be5. The computer counter-blundered with 1 Be3? and drew. What did it miss?

CHAPTER 3

First Steps

The first steps that some grandmasters take, after the queen trade, are literally steps—they get up and walk away from the board, even if it means letting their clocks run. The reason is that they want to clear their minds and put middlegame thoughts behind them.

When they return to the board for their next move, they want to sit down with a new set of priorities, goals, and fears. In short, they need to see the position with fresh eyes.

So should you. As soon as queens are exchanged or there is some other big liquidation of material, you should be reevaluating the position. Let's take a simple example:

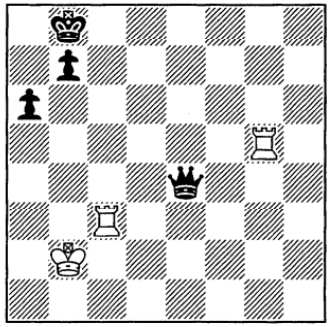

Diagram 38 Aronian–Šulskis, Capelle la Grande 2001
Black to play

Black has a slight material edge. But, there are the other factors:

(a) Black has a general goal of queening. White has no pawns and therefore no threat to promote.

(b) White's king has no natural protection so he must be careful to avoid a double attack that will lose a rook.

(c) Black's king does have a shield from checks, behind his pawns.

(d) White's only active play consists of checks and attacking one of the pawns with both rooks. Black should try to prevent the rooks from working together that way.

As a result of this evaluation, Black has a clearer idea of what it takes to win: a gradual advance of the pawns, supported by the king, with the queen stepping in to restrain White's pieces with checks, pins, and the like.

1 ... Ka7
2 Rg7 Qd4!

This attacks one rook and keeps the other from coordinating (3 Rc7).

3 Rgc7 a5

A path to a6 is cleared for the king.

4 R7c4 Qf6!

This is the only square on the diagonal that allows the queen to maintain the pin and be immune to attacks.

5 Rc5 Ka6
6 Rc7 b6

Now ... Kb5 can't be stopped. Progress is slow, but that's the best you can expect in most endings—another difference from middlegames.

7 Ka3 Qd6+
8 Kb3 Kb5
9 Ka2

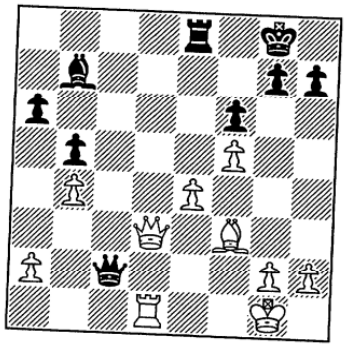

Diagram 41 Gelfand–Papaioannou, León 2001
Black to play

In response to White's offer to simplify (1 Qd3) Black has three options that are typical of the defense in many endings:

1) Black can avoid the trade and seek counterplay. But, here 1 ... Qxa2 loses to 2 Qd7! since 2 ... Qf7 allows a combination (3 Qxf7+ Kxf7 4 Rd7+ Re7 5 Bh5+ g6 6 fxg6+ hxg6 7 Bxg6+! Kxg6? 8 Rxe7).

2), Black can avoid the trade by just retreating and sitting on the position with 1 ... Qc7. That is best here and would put the onus on White to show how he'll make progress.

Black picked door number 3).

1 ... Qxd3?
2 Rxd3 Bxe4

Black had seen the coming pin on the e-file but figured he could escape.

3 Re3 Bc6

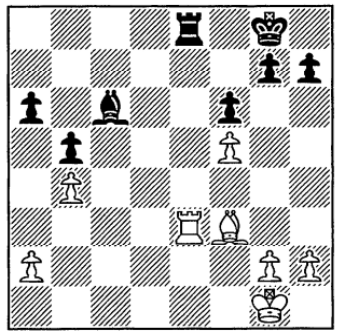

Diagram 42

This should lose, and would have if White had carefully considered his assets. Chief among them is the superior king position he could get with 4 Kf2!. The point is that his king penetrates to the queenside after 4 ... Rxe3 5 Kxe3 Bxf3 6 gxf3! Kf7 7 Kd4 followed by Kc5-b6xa6. That is enough to win because Black is much too late in creating his own passed pawn on the kingside.

But what if Black doesn't trade pieces and chooses 4 ... Rc8 instead?

That turns out to be just as bad because of 5 Rc3! (another pin) Bd7 6 Rxc8+ Bxc8 7 Ke3! Bxf5 8 Bb7 Kf7 9 Bxa6 Bd7 10 Kd4 and again the king invades at c5.

Compare this last line with what happened in the game:

4 Rxe8+?? Bxe8
5 Bb7 Kf8

Now White's king can't reach c5. For example, 6 Kf2 Ke7 7 Ke3 Kd6 8 Kd4 Bd7 and White's progress is stopped because 9 Bxa6 Kc6 traps the bishop.

6 Bxa6 Bd7
7 Kf2 Ke7

Now 8 Ke3 Kd6 9 Kd4 transposes into the last note.

8 g4 Kd6

With a threat of ... Kc7-b6, again trapping the bishop.

9 Bb7 g6!

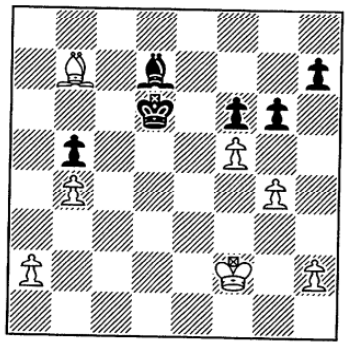

Diagram 43

White has an extra pawn, but it's the one at a2—that pawn is not going anywhere. Thanks to Black's king position, White's winning chances disappeared after 10 fxg6 hxg6 11 Bf3 g5! (no h2-h4-h5 now) 12 Ke3 Ke5!. A draw was agreed soon, after 13 a3 Be8 14 Be2 Bd7.

Now consider a queen trade on the same square, but this time it leads to a materially equal ending. Yet, the positional trumps are enough to win.

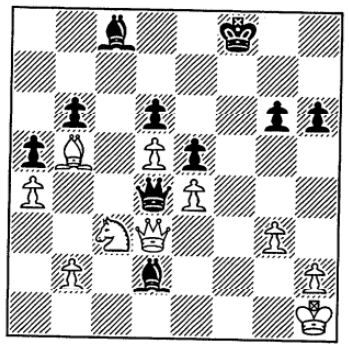

Diagram 44 Gallagher–Svidler, Biel 2000
Black to move

1 ... Qxd3!

Nothing is gained by 1 ... Qf2 2 Qe2.

2 Bxd3 Bxc3!

More often than not, good technique involves transforming one kind of advantage into another. Here Black gives up the "two bishops" in order to create an outside, passed pawn.

3 bxc3 Bd7

Without this last move, Black would enjoy the advantage of having a much better bishop than his opponent, but with no entry point for his king and no other means of breaking through.

4 Bc2

But here Black's edge is a lot more than theoretical because the only other defense to 4 ... Bxa4 was 4 Bb5?, which loses quickly to 4 ... Bxb5 and 5 ... a4, queening.

4 ... b5!

Black must act before 5 c4! locks the door and draws. Now his king can reach c5 by way of b6.

5 axb5 Bxb5

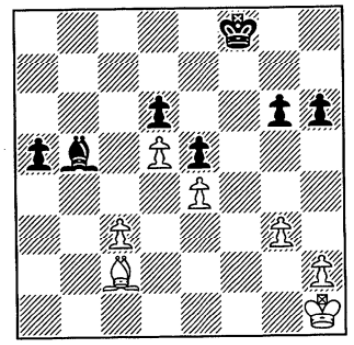

Diagram 45

This is what Black foresaw in Diagram 44. He has a passed a pawn and there is no White king within shouting distance to stop it.

6 Kg2 a4
7 c4 a3!

This forces the White bishop into blockade duty, and thanks to the trick 8 cxb5?? a2 and queens, it saves Black a tempo compared with 7 ... Bd7 8 Kf3.

8 Bb3 Ba4!
9 Ba2

Immediately lost is 9 Bxa4 a2.

9 ... Ke7
10 Kf3 Bc2

As we'll see further in Chapter Five, the key to many endings is having at least two "execution plans"—that is, plans that don't just make progress but should bring you to the point where the game is all but over. These are the knockout blows of technique.

Black's main execution plan was promoting the a-pawn. But the pawn has been halted at a3, and there is no way Black's king can force his way to b2 if White's king blocks it at c3.

Yet, Black can win because there is a second plan, capturing the White e-pawn and pushing his own.

11 Ke3 Kd7

If White stops the second plan by shifting his king between e3 and f3, Black goes back to the first plan and wins with ... Kc7-b6-c5-b4-c3-b2.

12 Kd2 Bxe4
13 Kc3 Bf3

Now 14 Kb4 e4 and one of the pawns promotes (15 Kxa3 e3 or 15 Bb1 e3 16 Bd3 a2).

14 Kd3 Kc7
15 Ke3 Bg4
White resigns

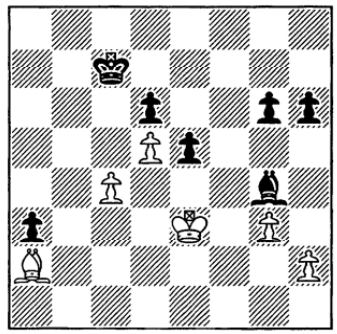

Diagram 46

The main Black threat is still ... Kb6-c5-b4-c3-b2 and promotion of the a-pawn. If White shuts the king out, he can't stop the e-pawn (16 Kd3 Kb6 17 Kc3 Kc5 18 Bb3 e4 19 Ba2 e3).

The next question, after "Who is ahead in material?" and "What are my assets?", concerns what we'll call the "mood" of the ending and the degree of urgency you have to deal with. But, before we get there, it's worth explaining what makes a position urgent.

COUNTERPLAY AND HARASSMENT

Good endgame positions, in the hands of masters, seem to improve inexorably. A pawn becomes passed and marches toward the eighth rank. The king advances powerfully. Annoying enemy pieces are exchanged.

The same position, handled by an amateur, may start off well but can quickly become entangled in all sorts of complications. Is the difference just that masters are better tacticians and able to avoid surprises? No. The materially superior side should, in the majority of cases, make slow but steady progress. Why? Because it is the materially greater side. Having more pawns and/or pieces will eventually matter because of superior force.

But, that's the long run. Some resistance is inevitable in the short run. Unless your opponent is in a total mess after queens are traded he should be able to blockade your pawns or pin your pieces or check your king. We'll call that *harassment*. Eventually you can overcome harassment through care and patience. What you really want to avoid is something else: *counterplay*.

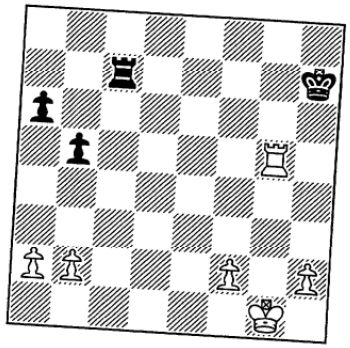

Diagram 47 Kramnik–Anand, Dortmund 2001
White to play

Black threatens 1 ... Rc2 and ... Rxb2. He would then have good chances of creating a passed pawn. Even though White has two passed pawns on the kingside, you can only push one pawn at each move, and Black might save the game with a fast passer.

In other words, he would have counterplay. Counterplay means the defender can actively improve his position, even creating his own winning chances.

However, it's White's move. He can avoid losing a queenside pawn. But, not by 1 Rg3 Rc2 2 Ra3, because after 2 ... Rxb2 3 Rxa6 b4! and ... b3 all the queenside pawns are liquidated.

The result would be one of those book positions you should be aware of but don't have to study. It is uniquely difficult; White's pawns are isolated, but they are close enough that Black's king can fight both pawns if it's in front of them. Also, one is a rook pawn and that always creates drawing prospects in a rook ending.

Black's best defense in such an ending—keeping his rook flexible so that he can check on files as well as ranks—offers a huge amount of harassment. Even when White wins such a position it usually takes 30-plus moves. He deserves an easier time.

1 a3!

You may be wondering why 1 Rg3 Rc2 2 Rb3 isn't just as good. The trouble is that White's rook is passive on b3 while Black's is active. That means Black can afford to pass (... Kg6-h6-g6-f6).

True, White will then make the steady progress that we mentioned above—with 3 Kg2, 4 Kg3, 5 h4 and 6 f4, for example. But

after that, when White tries to go farther and plays Kg4, Black can stop him with rook checks.

1 ... b4!

The best try. White intended to meet 1 ... Rc2 with 2 b4 Ra2 3 Rg3. This is an easy win because, in contrast with the previous note, White's rook is freed.

He can make the same kind of progress (4 Kg2, 5 Rc3, 6 Kg3, 7 h4 and 8 f4). But he enjoys a major advantage over the last note; Black's king can't advance to the third rank because of Rc6+xa6, which wins a pawn and still protects the one at a3.

2 axb4 Rc1+
3 Kg2 Rb1

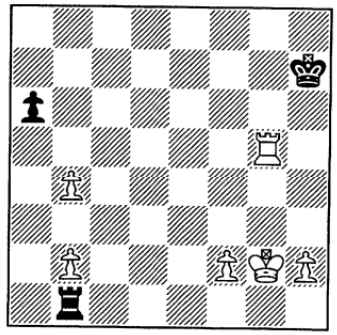

Diagram 48

Black seems to be getting closer to that notorious endgame (4 b5 Rxb2 5 bxa6 Ra2 and 6 ... Rxa6).

Better for White is 4 Rg4 Rxb2 5 Rc4, but then 5 .... Ra2 threatens 6 ... Ra4 and 7 ... a5.

Yet White prompts resignation with two simple moves.

4 Ra5! Rxb2
5 Ra4! Resigns

Why resign? Isn't White's rook even more passive on a4 than it would have been on b3 in the earlier line?

Yes, but what counts here is counterplay. Black has none because

his king can't advance to the third rank since that would allow Rxa6+. This means that White's king can shepherd the kingside pawns to the fourth, then fifth rank. Black has only harassing checks. If his rook leaves the b-file without giving check, White plays Rxa6 and keeps his b-pawn.

After 5 Ra4 White has a variety of execution plans. One of them is to play his h-pawn to the sixth rank (since ... Kxh6 allows Rxa6+). That ties up Black's king, so that White's king can nurse the f-pawn to the eighth rank. Ultimately, Black loses because he never got counterplay.

ENDGAME MOOD

Whether you are ahead in material or in positional advantages when the queens depart, it's vital to understand what we'll call the "mood" of the new position. Some endings begin with a sense of urgency, others allow you time to work out your next steps at your own pace. Usually, the mood will depend on the condition of your opponent's pieces. They can be:

(1) **Passive**. His pieces pose no immediate threats after the queen trade. He may not even be in a position to harass. You have a relatively free hand to start the winning process.

(2) **Disorganized**. This often happens because it was the defender's queen that held his middlegame together. Once it's off the board, his other pieces and his pawns are vulnerable—provided you strike before he consolidates.

(3) **Threatening.** His pieces are active and can harass or even create counterplay. The defender often enjoys a temporary reversal of fortune at this point because you gave up the initiative in order to get the queens off the board.

These categories are not always sharply defined when they appear on the board. In fact, the most common situation is one in which the defender's pieces are somewhere between passive and threatening. But when there is a clearly identifiable mood, it tells you what opportunities the position offers you—or what it demands from you.

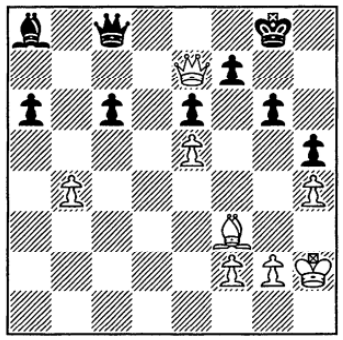

Diagram 49 Karpov–Lautier, Biel 1992
White to play

1 Kg3! Qb7?

Black's pieces were lifeless with queens on the board. Without the queen, he has virtually no useful moves. He should have passed (1 ... Qb8 and 2 ... Qc8), in effect asking White "What have you got after 2 Kf4?".

2 Qxb7! Bxb7

The first questions of the checklist tell us: (a) in terms of material, Black is a pawn ahead, but (b) in terms of assets, White's king and bishop are far superior to Black's.

3 Kf4 Kf8

Otherwise White captures both queenside pawns with Ke3-d4-c5.

4 Kg5!

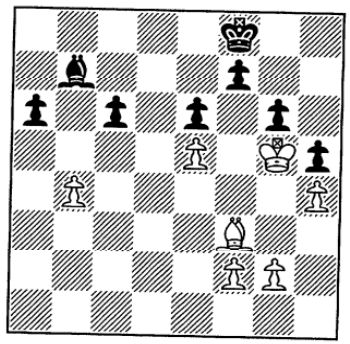

Diagram 50

The answer to the third question—"What is the mood?"—is: Black is horribly passive, so much so that White virtually plays without an opponent.

The reason a grandmaster (as Black) would allow such a situation is because he didn't think White had a plan other than Ke3-d4. But, White also has a strong alternative—5 Be4, 6 f3!, and 7 g4, creating a passed h-pawn.

4 ... Ke7

Black's bishop can only shift back and forth because 4 ... Bc8 5 Bxc6 leaves it stalemated. Sacrifices such as 4 ... Ke7 5 Be4 Ba8 6 f3 c5 fail to 7 Bxa8 cxb4 8 Bc6 b3 9 Ba4 b2 10 Bc2.

And his king cannot defend the kingside alone. For example, 4 ... Kg7 5 Be4 Ba8 6 f3 Bb7 7 g4 hxg4 8 fxg4 Ba8 9 h5 gxh5 10 gxh5 followed by 11 h6+, 12 Kf6 and 13 h7(+). Then Black's pieces are so hamstrung that White can win any—and possibly all—of his pawns.

5 Be4 Ba8
6 f3! Bb7
7 g4 Ba8
8 gxh5 gxh5

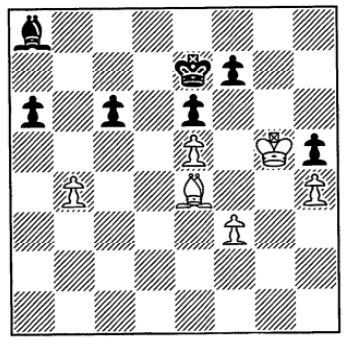

Diagram 51

9 f4!

Playing without an opponent means you have the luxury of taking precautions to ensure your opponent can't get back into the game. Here 9 Kxh5 allows Black a chance to rebound with 9 ... f5.

9 ... Bb7
10 Bf3 Ba8
11 Kxh5 Resigns

White would ignore 11 ... f6 or 11 ... f5 and win with 12 Kg6 and h4-h5-h6.

Now let's examine a position in which the defender's pieces are slightly disorganized, rather than passive. White has just sacrificed his e5-pawn, but he will regain his pawn by taking on c5 after the queen trade.

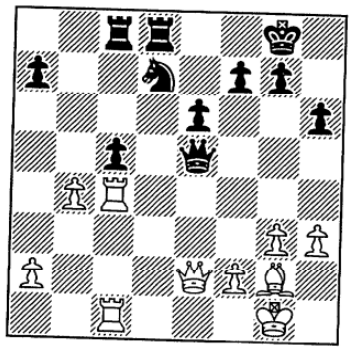

Diagram 52 Kramnik–Ivanchuk, Monaco 2001
White to play

But, what's so wonderful about his position then?

1 Qxe5 Nxe5
2 Rxc5 Rxc5
3 bxc5!

This is what. White understood that Black's pieces are, at least for the moment, unable to handle a powerful passed pawn. For example, White would win immediately after 3 ... Kf8? 4 c6 Ke7 5 c7 Rc8 6 Bb7.

In contrast, 3 Rxc5?, threatening 4 Rxe5 and gaining time for 4 Rc7 or 4 Ra5, is not nearly as good. Black would smooth out his piece placement with 4 ... f6 and 5 ... Rd7. Disorganized pieces have to be exploited quickly.

3 ... Rc8
4 c6!

The situation remains urgent. Black threatened to win the pawn with 4 ... Nd3 or to set up a solid blockade with 4 ... Nc6. Now, however, Black can't defend by bringing his king to the center because 5 c7 and 6 Bb7 must be stopped.

4 ... Rc7

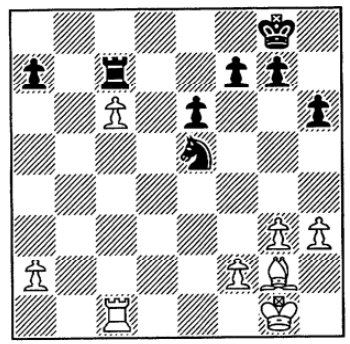

Diagram 53

As impressive as White's bishop, active rook, and passed pawn are, they won't be enough to win if Black can replace the rook at c7 with another blockader.

5 f4!

After 5 Rb1, Black has 5 ... Rc8!, which threatens 6 ... Nxc6 7 Rc1 Nc7!.

5 ... Nd7!

This trick (6 cxd7?? Rxc1+ and ... Rd1) allows the knight to reach a good square at b6. If the knight had gone offside, the pawn would become overwhelming (5 ... Ng6 6 Rb1! and 7 Rb7).

6 Rd1!

With 6 Kf2, threatening 7 cxd7, White could force a position with a dominating king—6 ... Nb6 7 Ke3 Kf8 8 Kd4 Ke7 9 Kc5. But, he is still far from a win after 9 ... Nd7+ 10 Kb5 Nf6 and ... Kd6.

Instead, White ensures that the enemy king cannot take part in a blockade.

6 ... Nb6
7 Rd8+ Kh7
8 Kf2

This is White's first non-forcing move since Diagram 52. He can afford to relax because Black's pieces are no longer disorganized; neither are they threatening (8 ... Nd5 is met by 9 Bxd5 exd5 10 Rd6 and Ke3-d4 and wins). In other words, the period of urgency is over.

8 ... g6?

Black's last chance was to get his king involved with 8 ... Kg6 9 Ke3 Kf6 10 Kd4 Ke7.

9 Ke3 Kg7
10 Kd4 Kf6

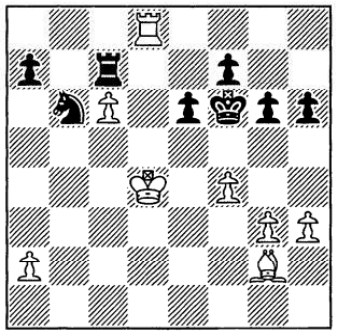

Diagram 54

11 Re8!

We've gone beyond considering mood. White can start thinking about an execution plan.

By stopping ... Ke7, he sets up Kc5-d6. If Black trades rooks, he loses the pawn ending (11 ... Rc8 12 Rxc8 Nxc8 13 c7 Ke7 14 Bb7 Kd7 15 Bxc8+ Kxc8 16 Ke5 and Kf6xf7).

11 ... Re7
12 Rb8

The minor piece ending—12 Rxe7 Kxe7 13 Kc5 g5 14 Kb5 gxf4 15 gxf4 Kd6—is tricky (16 Ka6 Kc7 17 Kxa7 Nd5!). If White examines it further, he will find that 14 fxg5 hxg5 15 h4! should win.

However, he preferred to keep rooks on the board to see how Black would respond to the threat of Kc5-d6 and c6-c7.

12 ... Rc7

White promotes after 12 ... e5+ 13 fxe5 Rxe5 14 c7.

13 Rb7!

Black's king is much too late. By the time it reached c7 it was time to resign—13 ... Rxb7 (or 13 ... Rc8 14 Rxa7 and Kc5) 14 cxb7 Nd7 15 Bc6 Nb8 16 Kc5 Ke7 17 Bb5 (zugzwang, 17 ... Kd8 18 Kd6) f6 18 hxg5 19 fxg5 fxg5 20 h5 e5 21 Kd5 Kd8 22 Kxe5 Kc7 23 Kf6 Kxb7 24 g6 Resigns.

Quite a different situation arises when your opponent's pieces are threatening or at least on the cusp of making threats. The level of enemy activity will determine how much you can accomplish, and how quickly. It may also warn you when you are courting disaster.

White failed to heed the warning in the next example, which helped decide a World Championship Candidates match.

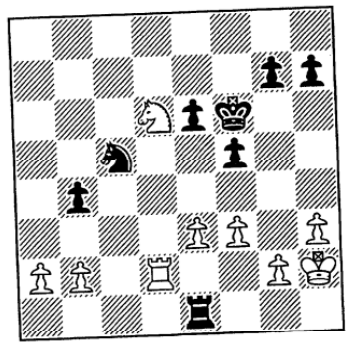

Diagram 55 P. Nikolić–Gelfand, Sarajevo 1991
White to play

White has an extra pawn, but no other significant assets. Black's pieces are active. Another question on our checklist concerns trades. White would love to trade rooks ("A knight ending is a pawn ending"). On the other hand, it's not clear who benefits from a trade of knights.

White can secure his extra pawn with 1 Nc4 Rc1 2 b3. But, he talked himself out of that because his chances of making rapid progress would be slim.

Instead, he engineered what looked like a constructive trade.

1 Rd4? Rxe3
2 Rxb4

White has two connected, passed, queenside pawns and that should be very good. But, he allows Black's pieces to become very active.

2 ... Re2!
3 a4 Nd3
4 Rb7 Nf4
5 a5?

White admitted after the game that he had become "obsessed" with the prospect of promoting the a-pawn, which would win after 5 ... Nxg2? 6 Kg1 Nh4 7 Rb3!. But, he failed to understand how much the position had changed in the last five moves. White should probably begin liquidating pawns with 5 Ne8+ Ke5 6 Rxg7 Rxb2 and concede that his chances of winning are no better than Black's.

5 ... Rxg2+
6 Kh1 Rd2

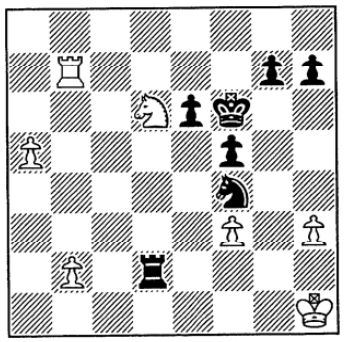

Diagram 56

White will get at least two more opportunities to reevaluate his chances—and to realize he is slipping into a lost position. Here, for example, he should play 7 Nc4!. That would give him time to shoot the a-pawn up the board (7 ... Re2 8 a6).

7 Ne8+? Kg5!

Suddenly the Black king is part of the attack—8 a6 Kh4! 9 a7 Kg3 10 Rxg7+ Ng6 and Black wins because of the ... Rd1 mate threat.

8 Kg1 Kh4
9 Kf1?

The king can't escape this way. White had to play 9 Rxg7 Rxb2 10 a6! in order to divert Black's attention from the kingside. In other words, White needs counterplay now.

9 ... Kg3!

11 Re2 h4!
12 Kb4

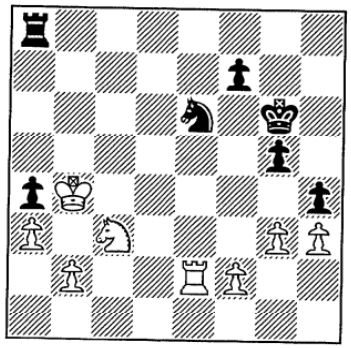

Diagram 59

Now 12 ... Rb8+ 13 Kxa4 Nc5+ 14 Ka5 and White is getting close to a win.

12 ... Rh8!

But this creates ways for White to lose as well as win (12 Kxa4 g4! 13 hxg4 h3). He eventually drew.

So was this just a difficult position all along? No. Back at Diagram 58 White should play 1 Rd7.

Why did he discard this obvious move? Probably because he didn't like the looks of 1 ... Rb6 2 Rxf7 Rxb2 or 2 Ra7 Rxb2 3 Rxa4, since pawn trades generally favor the defender.

But with 1 ... Rb6 2 Nd3! there are no trades and everything is protected. Then White has time to bring his king to c2 while his rook keeps Black's pieces quiet. Eventually, White would pick off the a-pawn.

For example, 2 ... Kf8 3 Kf1 Ke8 4 Rd5 Nc7 5 Rd4 Ra6 6 Nc5, or 4 ... Rc6 5 Ra5, or 4 ... Ke7 5 Ke2 and Kd2-c2.

Positions in which the defender's pieces already have threats require more vigilance. But, the sense of urgency doesn't have to last long.

Again it's a matter of a few accurate moves—such as trading off the most dangerous enemy piece or forcing the king backward. These maneuvers can turn a position from doubtful to winning.

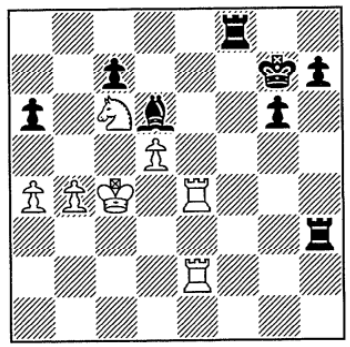

Diagram 60 Gallagher–Malaniuk, Elista 1998
Black to play

Black has just taken the h-pawn, but White's well-organized pieces and the prospect of a passed queenside pawn pose formidable problems. In general, trades would help Black, but he has to make sure he doesn't swap off all the rooks and leave himself with a bishop that can't stop White's a-pawn from queening.

1 ... Rff3!

Step one: Black threatens 2 ... Rc3+ 3 Kd4 Rhd3 mate and forces a rook to be diverted.

2 Rc2 Re3!

Step two: Trade off the active White rook. White can't avoid this because 3 Rg4 h5! 4 Rg1? Rh4+ 5 Nd4 allows a nasty pin. Then Black has to be careful not to swap pieces too quickly because White can create a passed pawn with a4-a5 and b4-b5. But, 5 ... Be5 6 Rd1 Ree4 7 Rcd2 Kf6! 8 a5 Ke7 wins (9 Kc5 Bxd4+ 10 Rxd4 Rxd4 11 Rxd4 Rxd4 12 Kxd4 Kd7 and ... h5-h4 etc.).

3 Rxe3 Rxe3
4 a5

White's pawns offer serious counterplay (5 b5 or 5 Nb8).

4 ... Re4+!
5 Kd3 Re8!
6 Kc4 h5

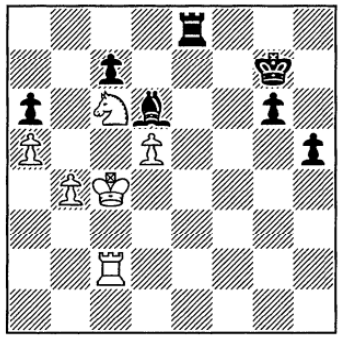

Diagram 61

It doesn't look like much but circumstances have changed significantly. Black now owns the e-file and his rook performs the dual role of stopping White's pawns from queening and cutting off his king from the kingside. The result is a race, but Black is a step or two ahead.

In fact, Black wins by a single tempo in key variations that follow 7 b5 axb5+ 8 Kxb5 h4 9 a6 h3 10 a7 h2 11 Rc1 Ra8 12 Ka6 g5!.

White avoided 13 Kb7 Rxa7+ 14 Kxa7 g4 and ... g3-g2 in favor of the equally lost 13 Nd4 g4 14 Kb7 Rxa7+ 15 Kxa7 g3 (or 15 ... Bc5+!).

When an opponent's pieces are disorganized you have to act with dispatch for a different reason. If you settle for the usual dawn-of-the-ending moves such as bringing your king toward the center, your opponent will have time to mutually regroup and protect his pieces. Your opportunity would then be lost.

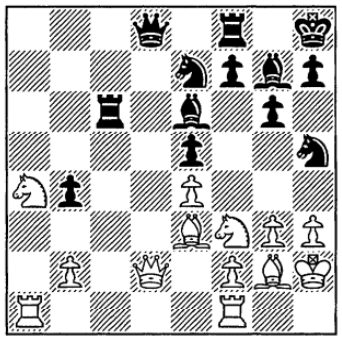

Diagram 62 Agrest–St. Pedersen, Bergen 2001
White to play

White can win a pawn immediately with 1 Qxb4 or force an endgame with 1 Qxd8 and then pick off the pawn with 2 Bc5. Which is better?

1 Qxd8!

Generally, the endgame is the practical choice, and here there are other incentives in favor of 1 Qxd8. After he plays Bc5xb4 White's pieces will be much better placed than Black's.

1 .... Rxd8
2 Bc5 Nc8

The knight is badly placed here but 2 ... Rd7 would be met effectively by either 3 Rfd1, threatening Rxd7, or 3 Bxb4, threatening Nc5.

3 Bxb4 Rc4

Black tries to get his pawn back by this fork. After 3 ... Nf6? 4 Nxe5 or 3 ... f6 4 Rfd1 he is clearly losing.

4 Ba5!

It's important to keep Black from consolidating, as he could after 4 Bc3 f6 (5 Nd2? Rxc3). The easiest way to stop a player from getting his pieces to protect one another is to keep hitting them.

4 ... Re8
5 Ng5!

Another shot at a target. Black cannot move the bishop and allow Nxf7+.

5 ... Bh6
6 Nxe6 Rxe6
7 Bc3 f6

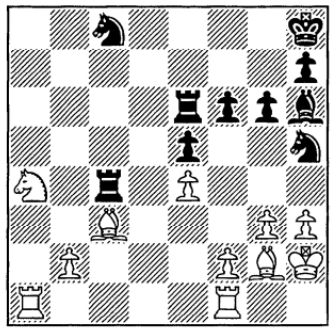

Diagram 63

8 Rfd1!

The threat is 9 Rd8+. Black would be lost after 8 ... Re8 9 Bf1 Rxe4? 10 Nc5 or 9 ... Rc7 10 Bb5.

8 ... Ne7
9 Bf1!

Suddenly what seemed like a difficult technical process in Diagram 62 is becoming easy. Black's pieces are pushed back (9 ... Rxe4?? 10 Nc5), while their White counterparts advance with every move (Bb5, b2-b4 and Nc5).

9 ... Rc7
10 b4 Nc6
11 Nc5 Re8
12 Bb5

White threatens, among other things, 13 Na6 and 13 Rd6.

12 ... Bf8
13 Ra6!

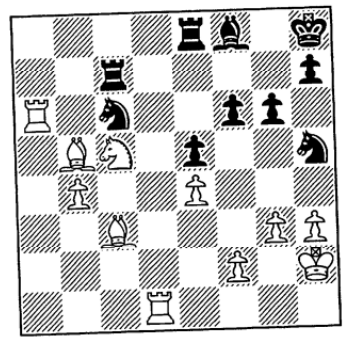

Diagram 64

Black never got a chance to catch his breath. He lost more material after 13 ... Rec8 14 Ne6! and resigned soon after 14 ... Nxb4 15 Bxb4 Bxb4 16 Nxc7 Rxc7 17 Bc6. Only a bit better was 13 ... Bxc5 14 bxc5 or 14 Rxc6.

TACTICS VERSUS COUNTERPLAY

What holds many talented players back when they try to win endgames is the notion that technique is something sophisticated and elegant and unrelated to the rough-and-tumble tactics of the middlegame.

Nonsense. Good tactics make good technique. Forks, pins, threats of various kinds—these are the bricks and mortar of technique.

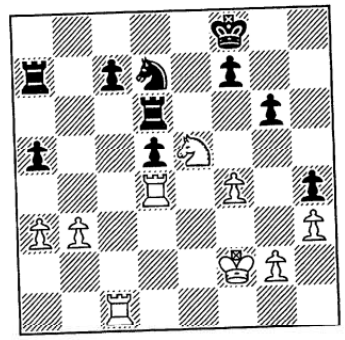

Diagram 65 Timman–Adams, Sarajevo 1999
Black to move

White sacrificed a pawn in the early middlegame but his initiative has slowly dissolved; the chief remnant is the knight on e5. Exchanging that knight would seem to help Black, but in fact, White's rooks would be powerfully placed (after Rc5, for instance).

1 ... Nf6!

To make progress Black must change passive pieces into active ones, such as after 2 Kf3 Rb7!.

2 Nf3 c5!

The knight fork (3 Rxc5?? Ne4+) enables him to carry out the next step.

3 Rd3 a4!

Now on 4 b4 Black could be tempted to settle for a connected passed pawn with 4 ... c4 or an outside passed pawn supported by a rook with 4 ... cxb4 5 axb4 a3.

However, he does best with 4 ... cxb4 5 axb4 Rb6!, activating the passive rook. This works because of tactics—6 Rd4 Rab7 7 Rb1 Ne4+ 8 Kg1 (or 8 Ke3 Re6! and discovered check) Nc3! and 9 ... a3.

4 Nd2 axb3

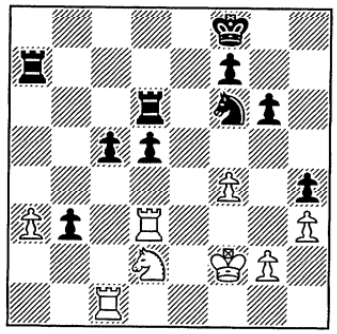

Diagram 66

5 Rxc5

White wanted to avoid 5 Rxb3 c4, which will cost him another pawn after ... Rxa3 or ... Nh5, ... Rf6.

5 ... Rxa3

Now 6 Rxb3?? loses to 6 ... Ra2 7Rc8+ Kg7 8Ke1 Re6+ 9Kd1 Ne4.

6 Rb5 Ra2
7 Rbxb3

White can use tactics too. He holds out hope of 7 ... Ne4+ 8 Ke3 Nc5 9 Ra3!.

7 ... Re6!

Now 8 Ra3 Ne4+ or 8 Kf1 Nh5 lose, as well as 8 Kf3 Ne4.

8 Kg1 Re2
9 Nf3 Rxg2+
10 Kh1

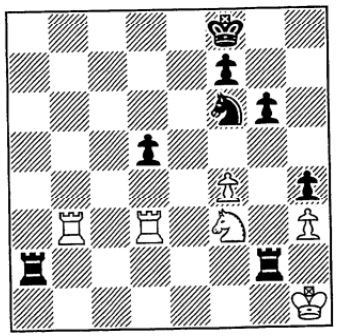

Diagram 67

10 ... Ne4
White Resigns

From Diagram 65 it took Black only ten moves to set up a mate threat (11 ... Ng3), thanks to tactics. White conceded in view of 11 Nxh4 Rge2 and ... Re1 mate or ... Nf2+.

"Tactics flow from the superior position," Bobby Fischer once said. You can use tactics to create passed pawns, to force favorable trades, to break blockades, to neutralize enemy pieces, and so on. We saw the use of a pin in Diagram 42 and mate threats in Diagram 60, among several earlier examples in this book. Most of all, good tactics cripple counterplay before it gets going.

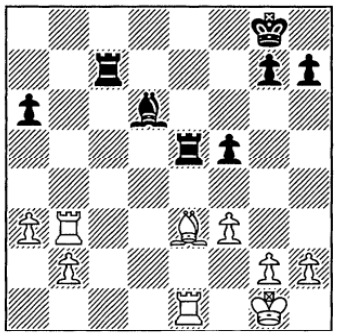

Diagram 68 Kasparov–Bareev, Paris 1991
White to play

A good technician develops a sense of tactical danger. When he looks a move or two ahead and begins to see pins, x-rays, or double attacks working for his opponent, his internal alarm system goes off.

Here White should be on notice when he examines a natural move such as 1 Rb6 and realizes it loses to a diagonal pin, 1 ... Rxc3! and 2 ... Bc5.

He should be further concerned when he notices a second tactic, the pin along the first rank after 1 Bf2 Rxe1+ 2 Bxe1 Rc1, which gets Black into the game after 3 Kf2 Bxh2.

1 Kf1!

Nothing fancy here. White protects his rook so that he can move the bishop. He also gets his king off a dark square, a good policy when your opponent has a bishop that runs on that color.

This is borne out by 1 Kf2 f4! (2 Bxf4? Rc2+ or 2 Bd2 Rc2!). But after 1 Kf1 f4 White has clear sailing with 2 Bd2.

1 ... Rd5

If Black trades off White's active rook, 1 ... Rb5 2 Rxb5 axb5, White can decide whether he should make progress after defending the h-pawn with 3 g3 (and then 3 ... Rc2 4 Re2) or can afford 3 Rc1 Bxh2.

Black can also try 1 ... Rce7, thinking correctly that 2 Rd1 Rxe3 3 Rxe3 Rxe3 4 Rxd6 Rb3 5 Rxa6 Rxb2 offers much better drawing chances than anything else. But, White does better with 2 Bf2! Rxe1+ 3 Bxe1 and then 3 ... Bxh2 4 Rb6 Ra7 5 g3. Computers may prefer the rook ending after 2 Rd1, but the more active pieces in the 2 Bf2 line make it the right choice for White.

2 Rb8+!

Black's last move was designed to keep more material (and tactical chances) on the board, e.g. 2 Rc1?? Rxc1+ 3 Bxc1 Rd1+. But, tactics are a double-edged sword.

2 ... Kf7
3 Rd8!

The tactics, particularly the pin on the d6-bishop, are now working in White's favor. He is winning, for instance, after 3 ... Rc6 4 Bg5 or 4 Rd7+.

3 ... Re7
4 Bf2

Trading a passive rook for an active one emphasizes the pin.

4 ... Rxe1+
5 Bxe1

The threat is 6 Bb4 or 6 Bg3.

5 ... Ke6

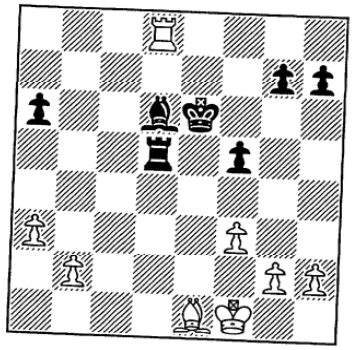

Diagram 69

Now 6 Bb4? Bxb4 7 Rxd5 Kxd5 8 axb4 Kc4 saves Black.

6 Ra8!

The a-pawn is doomed. Black can grab the h-pawn in return but the indirect trade of rook pawns will favor White, because his two connected passed pawns can shoot up the board.

Black banked on a centralized king with 6 ... Bxh2 7 Rxa6+ Rd6 8 Rxd6+ Bxd6 9 Ke2 Kd5. However, White ignored the kingside and just pushed on the queenside—10 Kd3 h5 11 a4 g5 12 b4 g4 13 a5 g3 14 a6 Kc6 15 b5+! Kb6 16 Ba5+! (16 ... Kxa5 17 a7).

Black resigned after 16 ... Ka7 17 Bd8! because White, now playing without an opponent, has an easy execution plan of Kc4-d5-c6.

Knowing how well tactics can extinguish counterplay will enable you to make all sorts of good decisions, such as choosing which pawns to swap, grab, or push. This greatly eased White's technical task in the following:

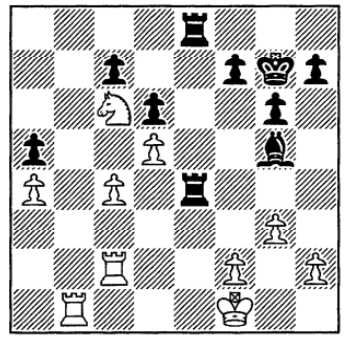

Diagram 70 Adams–Almási, Dortmund 1998
White to play

Black's a-pawn is ripe for the plucking. But how to pluck?

Can White afford to put his pieces offside with 1 Nxa5 and then 1 ... Ra8 2 Rb5? Or should he prepare with 1 Rb5?

1 Nxa5!

Black is going to get some play either way (1 Rb5 Re1+ 2 Kg2 Re2 3 Rxe2 Rxe2 4 Rxa5 Rc2) and this way minimizes the activity of his rooks.

1 ... Ra8
2 Rb5 Bf6

Now 3 Kg2 and Kf3 is safe and sound, but White finds a faster method, using tactics to advance his cause. First, he places his rook behind the passed pawn he wants to push.

3 Ra2 Bc3
4 Nc6 Rxc4
5 a5

Then he pushes the pawn. The execution plan is simply 6 a6, 7 a7, and 8 Rb8.

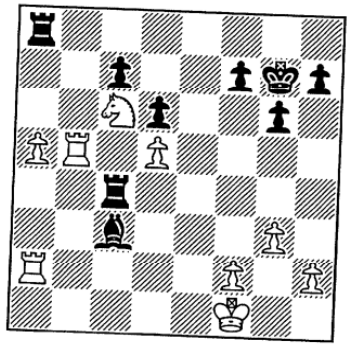

Diagram 71

Now on 5 ... Bd4, intending 6 a6 Bb6, White forces a trade of the enemy's active rook with 6 Rb4! Rxb4 7 Nxb4. Then he threatens 8 a6 followed by Nc6, a6-a7, Rb2 and Rb8.

Black can try 7 ... Bc5 8 Nc6 Ra6 but then White wins simply with Ke2-d3-c4-b5.

5 ... Ra6
6 Rc2!

The pin and threat of 7 Rb3 wins material.

6 ... Rcxc6!

The best try.

7 dxc6 Rxa5

Usually a player ahead the Exchange benefits from a trade of rooks, but here 8 Rxa5 Bxa5 9 Ra2 Bb6 is hard to crack.

8 Rb7! Ra1+
9 Kg2 Ba5

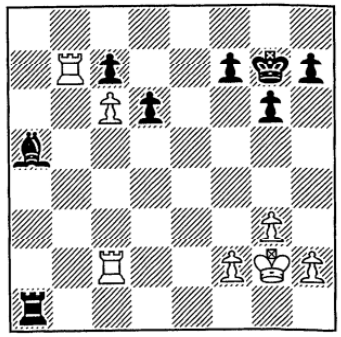

Diagram 72

10 Ra7!

One more pin. In view of Rb2-b5 or Rb2-b8-a8, White can force a trade of rooks and win the c-pawn, e.g. 10 ... Kf6 11 Rb2 Bc3 12 Rxa1 Bxb2 13 Ra7 or 11 ... Ke6 12 Rb8! Bc3 (otherwise 13 Rba8) 13 Rxa1 and Rb7.

WHEN IT'S CALMER

If the mood is calmer—and your opponent's pieces are neither disorganized nor threatening—the first step you will normally take is to improve the position of your pieces. Typically, this begins with bringing the king up from the first rank. Because the opposition is such a powerful weapon, getting your king into action before your opponent's is often decisive.

But, there is no hard and fast rule about when to activate the king. Some players—even some good players—move it forward when they can't think of a better move. Others do it as soon as it is "safe." But, often there are better moves.

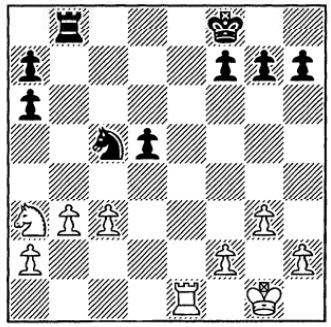

Diagram 73 Bareev–Morozevich, Russian Championship 1994
White to play

Black allowed a trade of queens (... Qa6/ Qxa6) to get out of a poor middlegame. His piece activity (... Rc8 or ... Re8 and ... Ne4) may make up for the bad pawns. But, a few accurate moves change the picture.

1 Rd1!

By attacking the d-pawn White neutralizes the enemy pieces. Very unpleasant for Black now would be 1 ... Rd8 2 c4 d4 3 Nc2 d3 4 Nb4 and Nd5 followed by f2-f3 and Kf2-e3. That's what many lost endings look like—one in which White can improve his position slowly and Black cannot stop him.

1 ... Ne4
2 Nb1!

Good technicians don't trade off pawns they can later win (2 Rxd5? Nxc3).

2 ... Nf6

And good defenders don't plunge into difficult endings such as 2 ... Rc8 3 Rxd5 Nxc3 4 Nxc3 Rxc3 5 Rd7 if they can avoid them (5 ... Rc2 6 a4 Rb2 and now 7 Rxa7 Rxb3 8 Rxa6 or 7 Rb7 and Kg2-f3 with excellent winning chances, as we'll see in Chapter Nine.

White has quite a bit of choice and can also meet 2 ... Rc8 with 3 Rd3 and 4 f3, with play like the game, if he prefers.

3 Rd4 Rc8
4 f3!

Now was the time for the king. This clears a path for Kf2 and restricts the enemy knight.

4 ... Ke7
5 Kf2 Ke6
6 Ra4!

And this ties Black's rook to the third rank because it must not allow Rxa6 with check.

6 ... Rc6

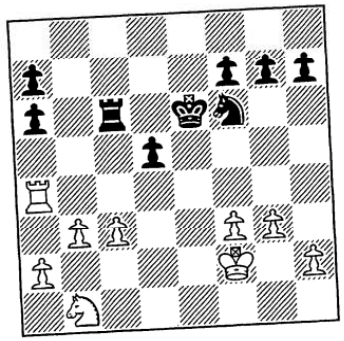

Diagram 74

The natural continuation would be 7 Ke3 Nd7 with a lot of play left.

7 Na3!

Now Nc2-d4 (or b4) will be strong and White would be happy to win a pawn after 7 ... Rxc3 8 Rxa6+. In view of Ke2-d3 Black tries to scare up kingside counterplay.

7 ... h5
8 Ke2

Yes, 8 Nc2 would be consistent. But, White may have appreciated that 7 ... h5 is semi-desperate, so he wanted to give his opponent enough rope.

8 ... g5?
9 Nc2!

Now this wins quickly because, in addition to Nb4, White has a new idea in Nd4+-f5.

9 ... Rxc3

Or 9 ... Kd6 10 Nb4 Rb6 11 Rxa6, and 9 ... Ke7 10 Nb4 Rxc3 11 Rxa6 Rc7? 12 Rxa7!.

10 Kd2 Rc7

Not 10 ... Rxf3?? or 10 ... Rc6?? because of 11 Nd4+.

11 Rxa6+ Resigns

Resistance was futile (11 ... Ke5 12 f4+! gxf4 13 gxf4+ Kxf4 14 Rxf6+, or 11 ... Ke7 12 Ne3, threatening 13 Nf5+ and 13 Rxf6!).

Once you've had experience with calm positions, you'll appreciate how getting better squares for your pieces will have an effect on your opponent's pieces.

This shouldn't be surprising: *There are only so many squares on the board that are significant at any stage of the game, and if your pieces control most of them, your opponent's pieces can't occupy them.* The problem is that you can rarely keep continuous possession of those squares and make progress toward victory. Maintaining control of the overall situation is an ongoing battle.

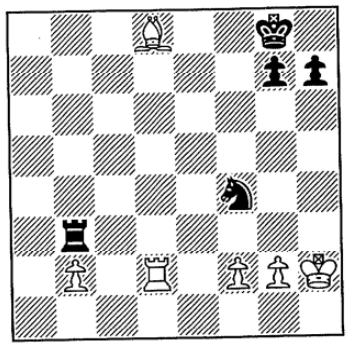

Diagram 75 Ponomariev–M. Gurevich, Belfort 1998
White to play

Two moves after trading queens White seems to have his work cut out for him because his b-pawn isn't going anywhere soon and he has to deal with Black's active pieces (e.g. ... Nd3). A trade of rooks would be nice, a trade of minor pieces less so.

1 Ba5!

Once the bishop reaches the c3-g7 diagonal, the b-pawn will be protected and White will have time to bring in his king to support the b-pawn's advance. That's the proper order of business: maximize piece efficiency first, bring in the king, push that pawn.

1 ... Rb5
2 Bc3 Nd5
3 Bd4 Kf7

After 3 ... Rb3 White can choose between the slow king march to c2 or 4 Be5, 5 f3.

4 Kg3! g5!
5 Kf3 Rb3+

Now White can achieve a won position with 6 Ke4 Ke6 7 Bc5! followed by Kd4-c4.

For example, 7 ... Nf6+ 8 Kd4 h5 9 Kc4 Rb8 10 b4 and 11 b5, 12 b6 and 13 Kb5 (or 10 ... Nd7 11 Rd6+).

6 Ke2? Nf4+
7 Kf1

White has to start over. But, starting over is not a terrible thing. Technicians have to live with this. Often the superior side can test a variety of steps before progress is evident.

7 ... Nd5
8 Bc5 Nf6

Black is beginning to create real counterplay (9 ... Ne4, and if 9 f3, then 9 ... g4 or 9 ... h5).

9 Re2 Nd5

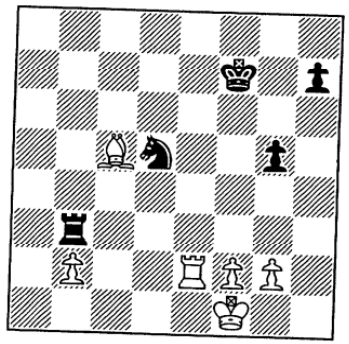

Diagram 76

10 g3?!

A very double-edged move. It stops ... Nf4, but at the cost of making it easier for Black to create a passed pawn.

10 ... Rb5
11 Bd6 Rb6
12 Ba3 Kg6
13 Rd2 Rb5
14 Ke2 Kf5!

Now 15 Kd3 Nb6 16 Rc2 is met by 16 ... Rd5+ 17 Ke3 Re5+ or 17 Kc3 h5.

15 Rd4 Ke5
16 Kd3

A trade of rooks (16 ... Rb3+ 17 Kc4 Nb6+ 18 Kxb3 Kxd4 19 Kc2) helps White a bit.

16 ... h5

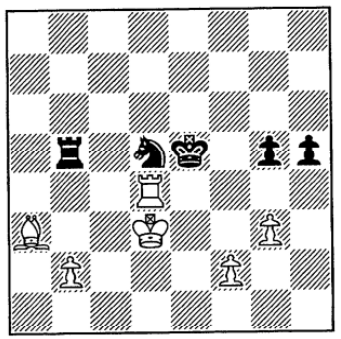

Diagram 77

Black has set up a line of defense along the fifth rank and has chances for ... h4-h3. But White can reestablish control of the situation if he maximizes his piece play before pushing. That means 17 Kc4! Ra5 18 Bc5 (18 ... Nf6 19 Rd8 Ke6 20 b4 Ra2 21 Bd4 etc.).

17 b4?

This threatens 18 Kc4 followed by a winning pawn advance. But, the pawn becomes a liability now because Black's piece activity hasn't been reduced enough.

17 ... Rb7
18 Re4+ Kf5
19 Rc4 Rd7!

And since White can't allow 20 ... Nb6+, Black got serious counterplay with 20 ... h4. He drew after 20 Rc5 h4 21 gxh4 gxh4 22 Ke2 (not 22 Kd4?? h3! and Black wins) Kg4! and ... h3.

Material, assets, mood, possible trades, plans—that's the checklist to keep in mind when the endgame begins. Ask the right questions and you'll start the ending with the right answers.

QUIZ

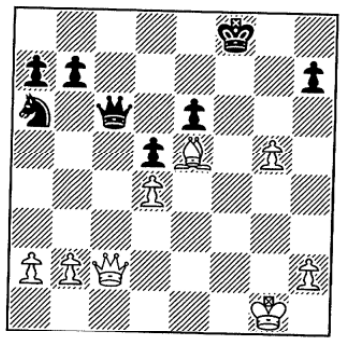

Diagram 78 Ivanchuk–Pomes, Terrassa 1991
Black to play

Concerned about the threat of g5-g6, Black played ... Qc6. Should White trade queens or take on h7? And if he trades, what next?

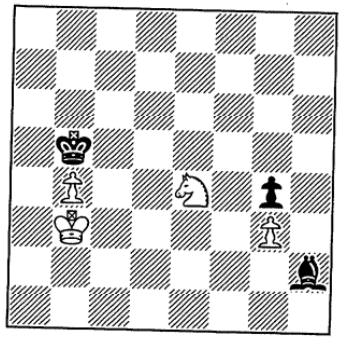

Diagram 79 Tiviakov–Jannsen, Dutch Championship 2003
White to play

How does White make progress while containing Black's counterplay?

CHAPTER 4

Swapping and Squeezing

The two most powerful weapons wielded by the player with an advantage are trading off and restricting enemy pieces. As we'll see in this chapter, the two go arm in arm.

But let's start with a general rule that should be familiar to any experienced player: *When you are ahead material, it usually pays to exchange pieces and not pawns.*

The logic behind trading pieces is simple; exchanges tip the ratio of the remaining forces further in your favor. If, for example, you have four minor pieces to your opponent's three, he may be able to stymie your progress for a while. But, if you swap off three pairs of pieces, and that leaves you with, say, a king, knight, and some pawns and your opponent has nothing but his king and pawns, your path to victory is much shorter.

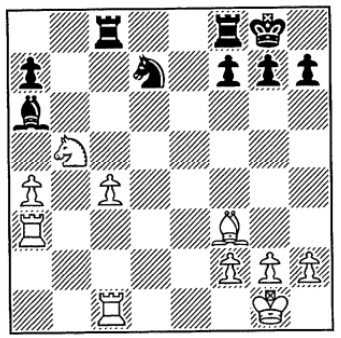

Diagram 80 Avrukh–Bunzmann, Biel 1999
White to play

White has an extra pawn, but it's threatened by 1 ... Rc5 and 2 ... Nb6 or 2 ... Rfc8. Should he simplify matters with 1 Nxa7—essentially trading the a-pawn for the c-pawn? Or, should he keep the tension and try to invade the seventh rank with 1 Re3 and 2 Re7?

1 Nxa7!

Both approaches are good. An argument can be made for 1 Re3 and then 1 ... Nb6 2 Re7 Nxa4 3 Nc7! because White's pieces would dominate after 3 ... Nc5 4 Nxa6 Nxa6 5 Rxa7 and Bd5.

But the text has the advantage of being more forcing and easier to calculate—and it leads to more exchanges. As additional pieces leave the board, the significance of a passed a-pawn, headed for a queening square that is controlled by White's bishop, escalates dramatically.

1 ... Rxc4

White's task is even easier after 1 ... Rc5 2 Nc6.

2 Rxc4 Bxc4
3 Nc6 Re8

Black can't control events on the a-file (3 ... Ra8?? 4 Ne7+; or 3 ... Ba6 4 a5 and 5 Nb4) so he tries for counterplay elsewhere.

4 h3 Ne5

He offers to trade a passive knight for White's active one. But, this is no exception to the general rule that piece trades should help White. Black would put up greater resistance with 4 ... Re1+ 5 Kh2 Kf8 6 a5 Ba6 7 Nb4 Nb8.

5 Nxe5 Rxe5

Threatening to blockade with 6 ... Ra5!.

6 a5 Ba6

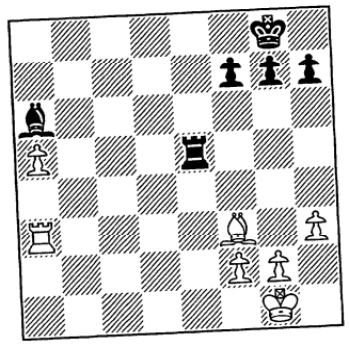

Diagram 81

Young players try to force pawns forward, such as here with 7 Rb3? Kf8 8 Rb8+ Re8 9 Rb6, and then try to figure out what to do after 9 ... Re6 10 Bg4 Rxb6 11 axb6 Ke7.

7 Re3!

This is much better because it compels one more trade (7 ... Rxa5?? 8 Re8 mate) and leaves White with only one major task—to break the blockade at a6.

7 ... Rxe3
8 fxe3 Kf8
9 Kf2 Ke7
10 Be2!

This trade seals the point. Black can't avoid the swap with 10 ... Bc8 because of 11 a6 Kd6 12 a7 Bb7 13 Bf3! and queens.

10 ... Bxe2
11 Kxe2 Kd6

Black's king is "in the square," meaning he can catch the a-pawn before it promotes. But, Black loses because White has a second way he can win.

12 Kf3 Kc5
13 Ke4 Kb5
14 Kd5!

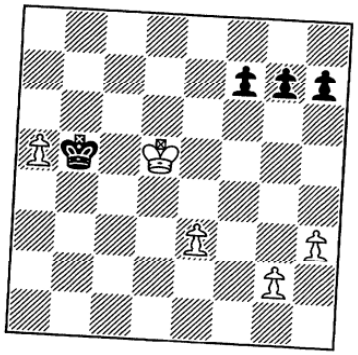

Diagram 82

And here it is: His king will plunder the kingside.

14 ... Kxa5
15 Kd6 Kb5
16 Ke7 f5
17 Kf7

After 17 ... g5 White can make the game's outcome obvious with either 18 Kf6 f4 19 e4! or 18 Kg7 h5 19 Kg6.

Black played 17 ... Kc4 18 Kxg7 Kd3 19 Kxh7 Kxe3 20 Kg6 Kf4 21 h4 Kg4 22 h5 f4 23 h6 Kg3.

White didn't even allow Black to dream about 24 h7 Kxg2 and 25 ... f3. He played 24 Kg5! and Black resigned before 24 ... Kxg2 25 Kxf4.

Exchanges have a way of sapping counterplay of its punch. Not in all cases, of course, but let's let Viktor Korchnoi speak:

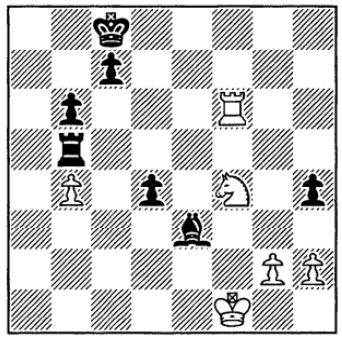

Diagram 83 Epishin–Korchnoi, St. Petersburg 1997
Black to play

1 ... Rxb4?

Black wrote that it was "unforgivable" for someone who had written a book on rook endings not to swap on f4. It would have saved him some 20 moves of "work," he added in *New In Chess*.

Rook endings are notoriously difficult, as the veteran grandmaster knew. But, you don't have to write books to see that 1 ... Bxf4! 2 Rxf4 and then 2 ... Rxb4 3 Rxh4 c5 is an easier win than with the minor pieces on the board (4 Rh8+ Kd7 5 h4 c4 6 h5 d3, threatening 7 ... Rc1+ 8 Kf2 d2 and queens).

After 1 ... Rxb4 White continued 2 Nd5! Rb5 3 Rf5 Rb1+ 4 Ke2 Rb2+ 5 Kd3 c6?! 6 Ne7+ Kd7 7 Rf7, and resisted for another 21 moves before conceding.

WHAT STAYS ON

But there's a psychological problem with trades. After you've literally spent hours building up a positional advantage—an advantage that depends on superior pieces—it's difficult to part with one of them.

The Soviet masters taught their students to avoid exchanges unless they increase your advantage. But let's say it again: *After the queens go off, your job is not to gain advantages but to realize the advantages you have*. That often means swapping a superior piece for an inferior one.

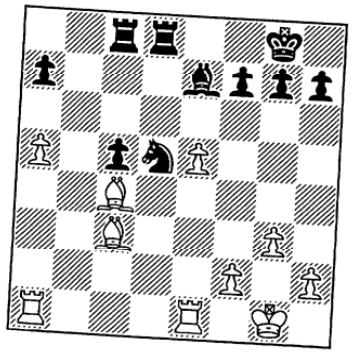

Diagram 84 Dolmatov–Ehlvest, U.S.S.R. 1987
White to play

White has just traded queens on c4 and that gives him a very promising position. But, he should avoid a trade on c3 (1 Rac1 Nxc3 2 Rxc3 Rb8 3 Rf3 Rf8 offers Black good drawing chances).

How then does White make progress?

1 Bxd5!

"The advantage of the two bishops is that you can always trade one of them for a knight" as the old Russian saying goes. Here, White appreciates that this exchange will trigger further trades that benefit his remaining pieces.

1 ... Rxd5
2 Red1

Now 2 ... Rxd1+ 3 Rxd1 Rd8 leads to much the same as the game after 4 Rb1!.

2 ... Rcd8
3 Rxd5 Rxd5
4 Rb1!

Compare this with Diagram 84 and you'll see how much easier White's life is. His rook must invade at b7 or b8 and almost certainly win a pawn.

For example, 4 ... Kf8? 5 Rb7 a6 6 Ra7. Better is 4 ... Rd3 5 Rb7 Bf8 6 Be1 a6.

4 ... f6

Black bids for counterplay at the cost of a pawn.

5 Rb7! Kf7
6 exf6 gxf6
7 Rxa7 Rd3
8 Be1 Ke6
9 Kf1 Ra3

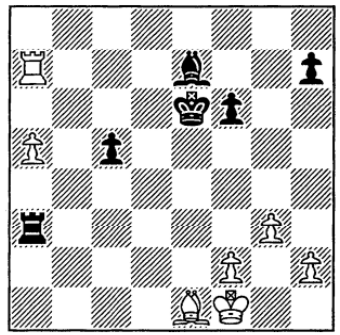

Diagram 85

With a well-guarded passed pawn, White should win—but not quickly. His basic plan is to require Black to use his king and rook to stop the a-pawn. Then White can pick up at least one pawn on the kingside and push a pawn that will be harder for Black to stop.

10 Bd2 h5
11 Be3

White threatens 12 Rxe7+ Kxe7 13 Bxc5+.

11 ... Ra2
12 a6 Bd6
13 Ra8

Now 13 ... Kf7 14 a7 will threaten 15 Rd8 or 15 Rh8 Rxa7 16 Rh7+. The position after 14 ... Be7 15 Kg2 and 16 Kf3 will be slowly lost.

In the game, Black tried 13 ... Kd7 14 a7 Kc7 15 Kg2 Kb7 16 Rd8

Bc7 17 Rd5, and resigned the adjourned position rather then playing out, say, 11 ... Bb6 12 Rxh5 Kc6 13 Rf5.

White made the correct decision when he played 1 Bxd5 because he followed an axiom of technique. To paraphrase Siegbert Tarrasch: *What goes off the board doesn't matter. What stays on does.*

This is also why the technician's position improved despite trading off a good piece after 2 ... Bxc3 in Diagram 44 and with 5 Nxe5 in Diagram 80. This principle can also apply to exchanges of your good bishop for his bad bishop or your active rook for his passive one, and so on.

The bottom line is fairly simple: If the resulting position is easier to win than the previous one, it passes the test.

Even though exchanges may be of "equal material" they often are not equal in value to you. This is particularly true in Exchange-up endings.

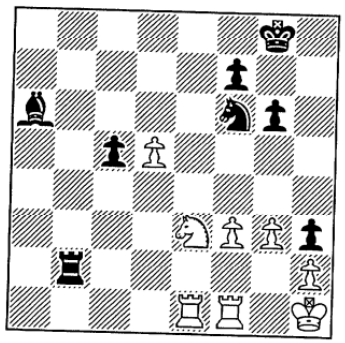

Diagram 86 Yevseev–Yuferov, Tula 2001
White to play

Three moves after a queen exchange, the most active piece on the board is a Black rook. White makes exchanging it his number one priority.

1 Rb1! Rd2

After 1 ... Rxb1 2 Rxb1 Black can't compete with the remaining rook, e.g. 2 ... Kf8? 3 Rb6 or 2 ... Nd7 3 d6 and Nd5.

2 Rfd1!

So that 2 ... Re2 3 Re1 Rd2? 4 Rb6, and it's White's rooks that matter.

2 ... Rxd1+

Now 3 Rxd1 Be2 4 Rd2 Bxf3+ 5 Kg1 Kg7 6 d6 Bc6 7 Nc4 is close to a win but not certain.

3 Nxd1! Nxd5
4 Kg1

The king suddenly becomes a factor, e.g. 4 ... c4 5 Kf2 and 6 Ne3 is strong, since 5 ... c3 drops a pawn to 6 Rc1.

4 ... Kf8
5 Kf2

Yes, White can also grab the h-pawn with Nf2xh3, creating a long-term plan of pushing a passed h-pawn. But, that stretches the game out by allowing Black to coordinate his pieces, e.g. 5 Rc1 c4 6 Nf2 Ke7 7 Nxh3 f6.

5 ... Ke7
6 Rc1

Now 6 ... Kd6 7 Nc3 forces knights off (7 ... Nb4? 8 Ne4+) and the rook runs rampant after 7 ... Nxc3 8 Rxc3 Kd5 9 Ra3 Bc4 10 Ke3 and Ra8.

6 ... Nb4

Similarly, 6 ... c4 7 Nc3 Nb4 8 Ke3 Kd6 9 Rb1 Nc6 10 Ne4+ and Nc5.

7 Ke3 Kd6
8 Nc3 f5

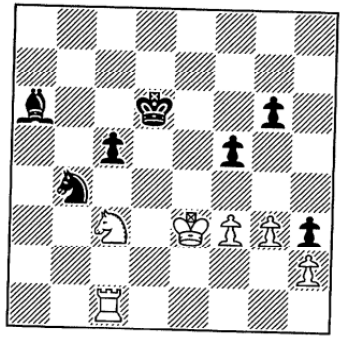

Diagram 87

Black has done his best to seal the files and stop Na4xc5 and Ne4+.

9 Rd1+!

The Exchange is only a significant advantage if the rook can act like a rook. Now 9 ... Ke6 10 Na4! is followed by N(x)c5 with check, or 9 ... Ke7 10 Nd5+! Nxd5 11 Rxd5 c4 12 Kd4 and the king invades.

9 ... Ke5
10 Rd8 Nc2+
11 Kf2

White can still win the slow way with Rh8xh3. But, driving Black's king back with 12 f4+ is faster.

11 ... Bb7
12 f4+ Resigns

Black gave up in view of 12 ... Ke6 13 Na4 or 12 ... Kf6 13 Rd6+ (13 ... Ke7 14 Rxg6 and 13 ... Kf7 14 Rd7+).

THE DOWN SIDE

As with everything else in chess, there are exceptions to the general rule about piece trades. Exchanges are notoriously capricious if they leave just kings and pawns on the board.

Pawn endgames are a matter of calculation. But they can be complicated by optical illusions.

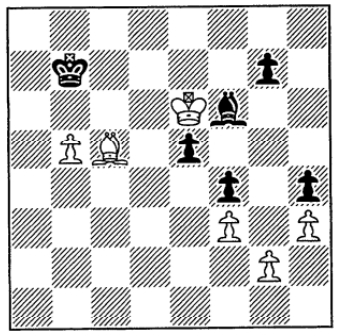

Diagram 88 Sheinin–Solonar, Soviet Spartakiad 1976
White to play

White has gotten as far as he can through maneuvers. He can force a final liquidation with 1 Bd6!, e.g. 1 ... Kb6 2 Bxe5 Bxe5 3 Kxe5 Kxb5 4 Kxf4 and 5 Kg4, or 3 ... g5 4 Kf5. But, he tries a more direct route.

1 Be7?? Bxe7
2 Kxe7 g5!

White's win is gone and he must worry about holding Black to a draw. Emotions run high at such moments, but after careful study White might have found 3 Kd6!, the only move that draws. He didn't.

3 Kf6?? e4!
4 fxe4 g4!

Now 5 hxg4 f3 or 5 ... h3 wins.

5 e5 f3

Black makes a queen first—and this time, being first counts because of the unfortunately placed White king. White resigned after 6 e6 f2 7 e7 f1(Q)+ 8 Kg7 Qxb5.

Another cautionary tale is the following. White seems to rule the board yet there is nothing she can do to with her spatial edge.

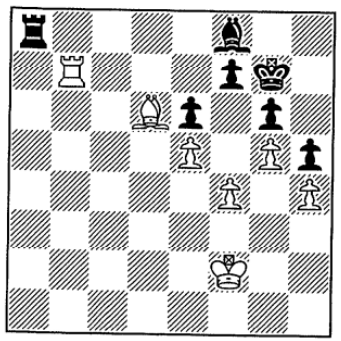

Diagram 89 Zatulovskaya–Strelnikova, U.S.S.R. Women's Championship 1974
White to play

For some time, Black has been limited to king and rook "passes," leading White to believe she can convert her piece activity into something tangible.

But, there is no reason to believe either player is significantly better because there are no passed pawns and no targets to attack. White's king can march up and down the board while Black's is confined to the vicinity of g7, and Black's bishop refuses to trade on d6. But, it won't matter. However:

1 Rb8?? Rxb8
2 Bxb8

White probably reasoned that she could advance her king and play Bd6 in order to create a winning passed pawn after ... Bxd6 and exd6.

2 ... Bb4

But White's advantage was a mirage. On 3 Bd6 Black avoids 3 ... Bxd6?? and plays for a win with 3 ... Bd2.

As a result of further minor White errors, Black was able to force White's king and bishop to defend her pawns, while freeing her own king. After more than two dozen moves the exchange of rooks came back to haunt White.

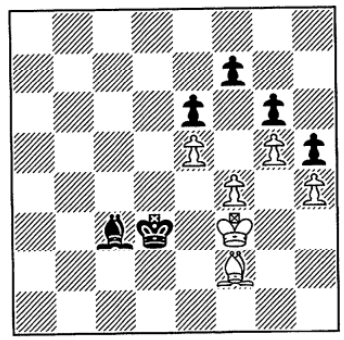

Diagram 90 Black to play

Now it's Black's turn to think of winning by trades or restriction. A pawn ending may be won for her but 26 ... Bd4 27 Be1! won't do the job.

26 ... Kd2!

Now 27 Bg3 Bd4 runs White out of moves (28 Bh2 Ke1 29 Bg3+ Kf1 30 Bh2 Bf2).

27 Bg1 Ke1
28 Be3 Kf1

The threat is ... Be1xh4.

29 Bf2 Bb4

Not 29 ... Be1?? 30 Bxe1 Kxe1 31 Ke3 and White draws because she keeps the opposition. Black's king can't leave the first rank without permission.

30 Kg3

Or 30 Bg3 Be1!.

30 ... Be1!
Resigns

Once Black gets the opposition the win will be clear. For example, 31 Bxe1 Kxe1 32 Kf3 Kf1 33 Ke3 Kg2 or 33 Kg3 Ke2.

One final warning about trades. When calculating a queen trade, or a series of piece exchanges, stop when you're done and take one more look at the position. Then ask yourself: Is this really forced? That precaution would avoid embarrassments such as:

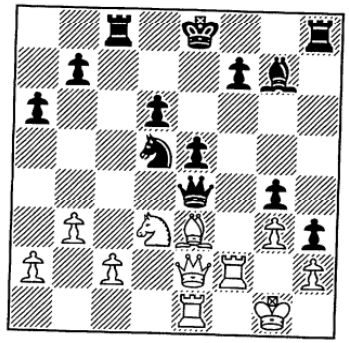

Diagram 91 Anand–Kasparov, Geneva Grand Prix 1996
Black to move

Black correctly concluded his two-pawn edge must win if he reaches an endgame. For example, 1 ... Nxe3! 2 Qxe3 Qxe3 3 Rxe3 and now 3 ... f5 is the most forceful, since 4 Rxf5 Rxc2 and ... Bh6, ... Ke7-e6, should end matters fairly soon. But, Black threw $10,000 away with one move.

1 ... Qxe3??

This would have had the same result as 1 ... Nxe3! 2 Qxe3 Qxe3. But Black overlooked:

2 Qxg4!

White threatens 3 Qxc8+ as well as 3 Rxe3, both crushing. Black had nothing better than 2 ... 0-0 3 Rxe3 Nxe3 and resigned 20 moves later.

SQUEEZE PLAY

The other major weapon wielded by the player with an edge is the restriction of enemy pieces. This is a complement of exchanging. Here's why:

In a typical position your pieces control some squares. Your opponent's pieces control other squares. And there is a third category of squares attacked by both sides. Your pieces deter his from entering the no-man's land and his pieces do the same to yours.

If you move a protected piece into one of those disputed squares, you are offering to swap. When your opponent avoids a trade by retreating, you have scored a minor victory. From where your advanced piece now stands, it restricts the enemy to fewer and fewer squares. As a result, the mere threat to exchange pieces has become a weapon in itself. He retreats, you benefit.

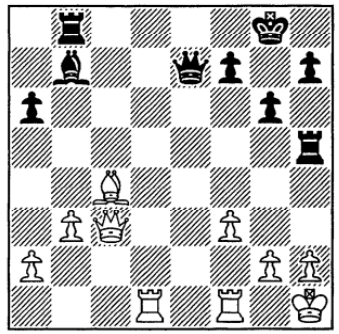

Diagram 92 Domínguez–Abreu, Cuban Championship 2002
White to play

A solid pawn up, White has excellent winning chances.

1 Qd4!

White will stop any bid of counterplay (such as ... Qc7) with 2 Qd6. Black decides an endgame would be lost, so:

1 ... Rf8

The rook is passive, but at least it's protected here and Black can meet 2 Qd6 with 2 ... Qh4.

2 Rfe1! Qa3
3 Qb6! Bc8

This is the consequence of avoiding trades; Black's pieces have

fled to the fringes of the board, leaving White in command (3 ... Ba8 4 Qxa6). An opponent whose pieces are so confined is ripe for the kill.

4 Rd8!

This forces a painful trade because Black has nothing at home for defense. After 4 ... Kg7 the quickest of several wins is 5 Qd4+ Kh6 6 g4!.

4 ... Qa5
5 Qxa5 Rxa5
6 Ree8! Resigns

White must win a piece (6 ... Rxe8 7 Rxe8+ and Rxc8).

There is a paradox here. Black could have lasted much longer if he had allowed a trade of queens after Qd6. But, in his view, defeat would have been more certain with queens off, so he allowed his pieces to be confined more and more—and lost immediately.

ULTIMATE SQUEEZE

There are other means of restricting your opponent, but, like offering trades, they are based on the fundamental logic of technique—the materially superior side should win because it is the materially superior side.

Eventually, the process of restricting can run the weaker side out of useful moves. The result is zugzwang, the ultimate form of restriction.

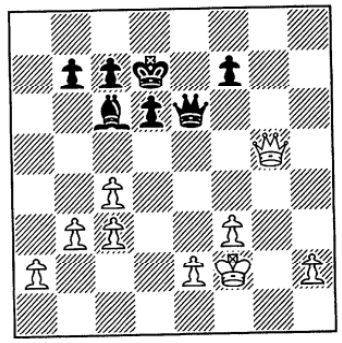

Diagram 93 Jobava–Almási, Ohrid 2001
Black to play

In theory, White has enough pawns to compensate for the lost bishop. But he should lose, even if he creates an outside passed pawn, if Black squeezes him.

1 ... Qe5!
2 Qxe5 dxe5
3 e4

Black can't capture pawns by force. He must use his extra piece in a way that exhausts White's king and pawns of moves. This is why the non-committal 3 Ke3 was a better defense. It would have given White more passes later on.

3 ... Ke6
4 Ke3 b6!

The first restriction: Black stops a4-a5.

5 a4 Kf6!

Now 6 h4 Kg6 and .... Kh5 will run White out of moves (7 Kf2 Kh5 8 Kg3 Bd7). Once that happens, his pawns begin to fall.

Similarly, 6 Kf2 Kg5 7 Kg3 Bd7 8 Kg2 Kf4 9 Kf2 f6 and ... Be8-h5xf3.

6 f4 Ke6!

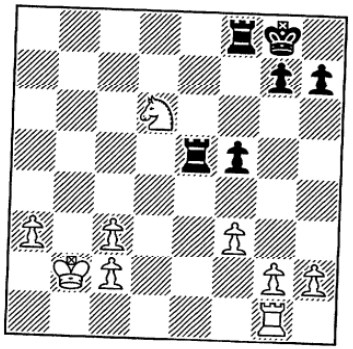

Diagram 96 Shulman–Morozevich, Elista 1998
Black to play

1 ... Rd5!

Grabbing the seventh rank is not nearly as good since 1 ... Re2 2 c4 or 2 Nb5 allows White to regroup—so much so that he would have the better winning chances.

2 Nc4 Rc8!
3 Ne3 Rb5+
4 Kc1 Rxc3

Now 5 a4 Re5! 6 Nd1 Ra3 wins the a-pawn while keeping White's pieces in a box.

5 Kd2 Rxa3
6 g3

White tries to build an impregnable kingside fortress since 6 c4 Rbb3! 7 Nc2 Rd3+ 8 Ke2 Rac3 is lost.

6 ... g6
7 Rd1 Re5

In a remarkable number of Exchange-up situations, the right move is simply to attack an enemy piece (8 Nc4 Rd5+ and ... Rxd1).

8 Re1 Kf7
9 Re2 Ke6

By protecting f5, Black threatens 10 ... g5 and 11 ... f4, followed by a trade of rooks.

10 f4 Re4
11 c3 Kd6
12 Kd3 Kc5

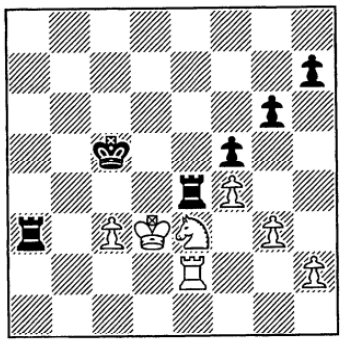

Diagram 97

White cannot survive long if he allows a swap of rooks. For example, 13 Rd2 Rd4+ 14 Kc2 Rxd2+ 15 Kxd2 Ra2+ 16 Nc2 Kc4! illustrates another feature of Exchange-up endings; the decisive factor is not the rook, but the difference that it makes in the power of the two kings.

13 Rc2

Black wins if he can pillage the kingside or separate White's king from the knight (13 Rb2 Rd4+ 14 Kc2 Rd6 15 Rb8 Ra2+ and 15 Nd1 Ra8 and ... Re8-e2+).

13 ... Ra7!
14 Rd2 Rd7+
15 Ke2 Rxd2+
16 Kxd2 Ra4!
17 h4 Ra2+
18 Ke1

White seems to have covered all the bases (not 18 Nc2 Kc4).

Not 6 ... exf4+? 7 Kxf4, when White's king is freed and Black must begin the confinement process again.

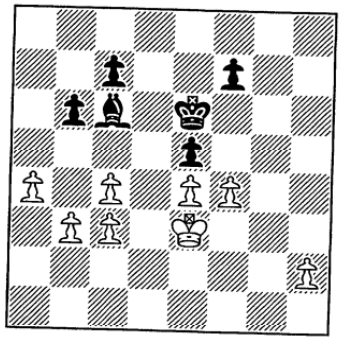

Diagram 94

But now 7 fxe5 Kxe5 and 7 Kf3 f5 both lose the e-pawn, while 7 f5+ Kf6 8 Kf3 Kg5 leaves White close to zugzwang.

That's the message here: *You win most piece-up endgames through trades, then restraint and finally zugzwang*. Once the kings are in opposition, you can make passes with your piece that your opponent can't match. Eventually his king must give way.

7 c5!

A good try. White sacrifices his doubled pawn to create an outside passer.

7 ... bxc5
8 a5 Bb7!

There was no reason to allow the pawn easy access to a7.

9 b4 cxb4
10 cxb4 f6

Also good was 10 ... Ba6, e.g. 11 f5+ Kf6 12 h4 c6 and ... Kg7-h6-h5xh4.

11 b5 Kf7
12 a6 Ba8

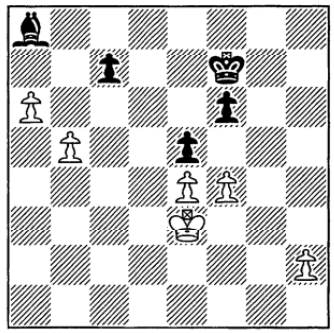

Diagram 95

Black can even afford to stalemate his bishop (!) because on a8 it stops two of White's three sources of counterplay: The a-pawn can't advance and the White king is tethered to the defense of e4.

The third means of counterplay, advancing the h-pawn, keeps the game going a bit longer. Now 13 fxe5 fxe5 14 Kf3 Kf6 15 Ke3 Kg5 and wins.

13 a7 Kg6
14 fxe5 fxe5
Resigns

After 15 Kf3 Kg5 16 Ke3 Kh4 the outcome is clear. Black's king will break through on the kingside and eventually win two pawns. Then Black's execution plan is promotion of his e-pawn.

Restriction is also crucial in Exchange-up endgames. This is because a rook dominates a minor piece—especially a knight—and can confine a defender's king while the other king runs rampant. A typical example:

18 ... h5!

But when an opponent's defenses are stretched this far, zugzwang should be close. Now 19 Nd1 Rg2 or 19 Nf1 Kc4 or 19 Kd1 Rf2 and ... Rf3 all lose.

19 Kf1 Rd2
20 Ng2 Rd3
21 Kf2 Rxc3
22 Ne1

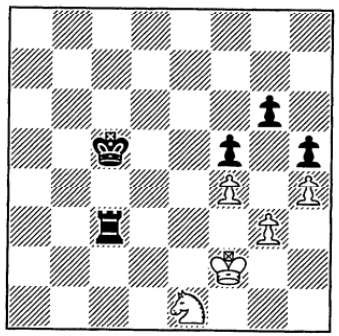

Diagram 98

Black can swap down to a pawn ending: 22 ... Kd4 23 Nf3+ Rxf3+! 24 Kxf3 Kd3 (opposition) 25 Kf2 Kd2 26 Kf3 Ke1 27 Kg2 Ke2 and eventually ... Kxg3. This kind of material conversion is discussed further in Chapter Six.

But, because pawn endings are tricky, Black chose the alternative—more restriction: 22 ... Kd5 23 Nf3 Rc2+ 24 Kg1 Ke4 25 Ng5+ Ke3 26 Kf1 Rc1+ 27 Kg2 Rb1! (zugzwang) 28 Kh2 Kf2 29 Nh3+ Kf3 30 Ng5+ Kg4! 31 Nf7 Rb2+ White resigns.

One final point: *Restriction is also a psychological weapon*. As your opponent finds his pieces squeezed further and further, he begins to accept defeat.

In the following example, we see Black throw in a check to force White backward. But, it has the effect of giving White a way to build a pawn wall that hampers Black considerably. Stung by the reversal, Black seemed to lose the will to resist.

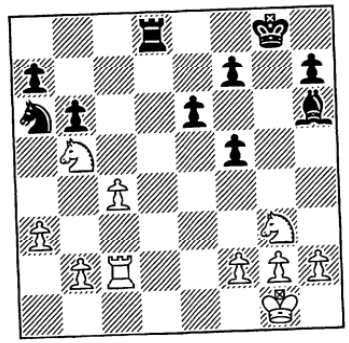

Diagram 99 Minasian–Dreev, Soviet Championship 1991
White to move

White knows he can pick off the a-pawn. He also knows he has to deal with Black's bid for counterplay at some time (1 ... Nc5-d3).

1 b4!

He prefers to restrict first, grab later.

1 ... Rd1+?
2 Nf1 Rd7
3 g3!

Now Black realizes he is worse off than after 1 ... Rd7 because f2-f4 will shut out his bishop.

3 ... Kf8

Worse is 3 ... f4 4 g4! followed by 5 f3 and 6 Kf2, when Black's own f-pawn stifles his bishop.

4 f4 Ke7
5 Rd2!

Offering a rook trade requires a bit of calculation because of the pin created by 5 ... Rxd2 6 Nxd2 e5.

White may have concluded that his queenside pawns would win after 7 Nxa7 (threatening Nc8+xb6) regardless of what happens on the kingside. This is borne out by 7 ... Kd7 8 Nb3 exf4 9 b5 and his

CHAPTER 5

What It Takes to Win Most End Games

Let's recall that first question you ask after the queen trade: Who is ahead in material and by how much? That raises another question: How much is enough to win?

An extra pawn? Two pawns? The answer will affect your decision-making for the rest of the ending. If you have two more pawns than your opponent, can you afford to give one back to improve the position of your king? Or to force beneficial trades? Or to kill counterplay?

Knowing what it takes to win requires some technical expertise and a bit of experience—but not logic. This is one area of chess competence in which you cannot rely on common sense. The endgame has its own logic, and because of special cases, it's often illogical.

Sometimes an extra pawn is more than enough. And sometimes an extra piece is insufficient. There are rare cases in which a player has a huge material advantage—king and two knights versus king, for example, or king, rook pawn, and "wrong-colored bishop"—but simply cannot force a win.

There are other situations in which the win is surprisingly difficult.

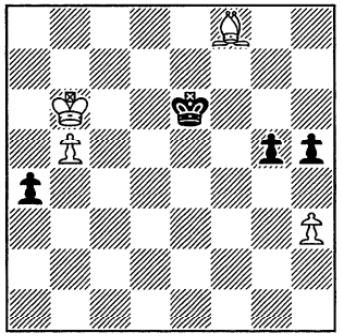

Diagram 105 Keller–Smyslov, World Team Championship 1985
Black to play

White's extra piece seems to guarantee an effortless win. But, Black's pawns promise counterplay.

1 ... g4
2 hxg4 h4!

White catches both passed pawns after 2 ... hxg4 3 Ka5 g3 4 Kxa4 g2 5 Bc5.

3 Ka5 h3

The h-pawn is so fast that White must join the queening race.

4 b6 h2
5 b7 h1(Q)
6 b8(Q) Qd5+
7 Kxa4 Qe4+

Black would ensure a draw if he could capture White's last pawn. But, unfortunately for him, he can't (8 Ka3 Qxg4?? 9 Qc8+).

His only other hope of forcing a draw is perpetual check. For example, 8 Qb4 would win after 8 ... Qxb4+ 9 Kxb4 Kf6 because 10 Bh6! Kg6 11 Bf4 preserves the pawn. White's execution plan is to bring his king to the kingside, crowd out the enemy king, and promote.

However, 8 Qb4? is bad because of the checks—8 ... Qa8+! 9 Kb3 Qf3+! 10 Kb2 Qg2+ 11 Ka3 Qa8+.

8 Ka3?

In fact, there is only one clear win, 8 Bb4!, so that on 8 ... Kf6 the Black king is kept from reaching the g-pawn by 9 Qg8.

8 ... Kf7

Black threatens both 9 ... Qxg4 and the slower ... Kg6-g5.

9 Qc8 Kg6

QUIZ

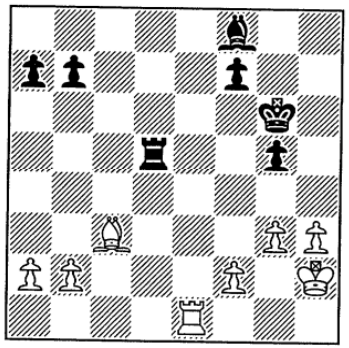

Diagram 102 Magomedov–Barua, Elista 1998
Black to play

How would you evaluate 1 ... Bg7—as opposed to 1 ... b5 2 Re5 ?

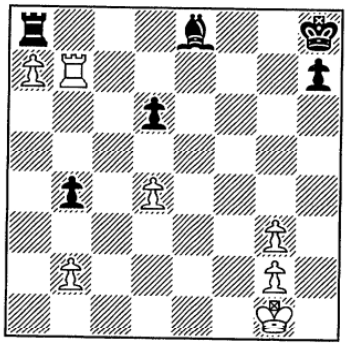

Diagram 103 Cherepkov–Chepukaitis, Leningrad 1963
White to play

What's White's best move, and what is the likely result?

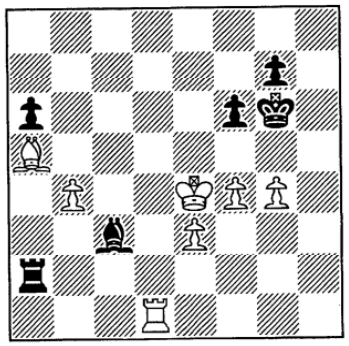

Diagram 104 Ftáčnik–Narciso Dublan, Lisbon 2001
White to play

Black is quite restricted. But how does White make progress?

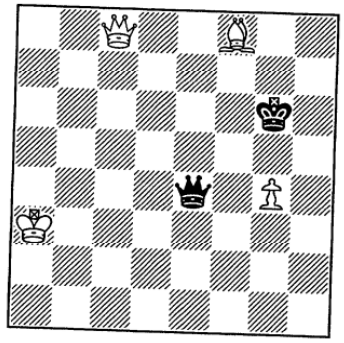

Diagram 106

If he can't promote the g-pawn, White can only go through the motions of trying to win with queen and bishop against queen. Black can't force a draw then, but it's fairly easy for him to parry all of White's winning threats.

White defended the pawn by advancing it—10 Bc5 Kg5 11 Qg8+ Kh4 12 Bf2+ Kh3 13 g5 Kg4! 14 g6 Kg5! 15 g7 Kg6! 16 Qf8. Then White's pieces protect one another so well that they play no defensive role on the light squares once Black began checking.

White conceded the draw after 16 ... Qd3+ 17 Kb4 Qd2+ 18 Kc4 Qc2+ 19 Kd5 Qa2+ 20 Ke5 Qe2+! 21 Kd5 Qa2+ 22 Ke4 Qc2+ 23 Kf3 Qc3+! and ... Qxg7.

So let's start with this guideline: *To win almost all endgames you need a passed pawn that can be promoted.*

If the passed pawn already exists—that is, if it was created in the normal course of the middlegame—then your task is relatively simple. You need to support the pawn's advance. If your opponent can't stop it or create counterplay/harassment, the game is over.

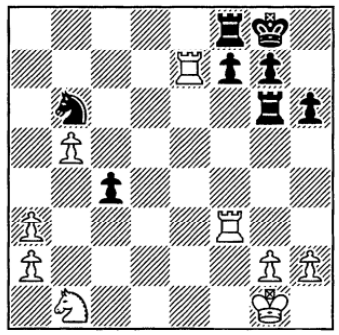

Diagram 107 Galkin–Novostruyev, Russian Championship 2002
White to play

Queens have just been traded on f3. Both sides have passed pawns. White's rooks are more active, but Black's rook at g6 is excellently placed for maintaining the blockade at b6 and directing counterplay at g2.

1 Ra7!

The win is almost routine once White realizes he must push the a-pawn. Even though doubled, it has by far the best chance of promotion since it is the most "outside."

On the other hand, 1 Nc3? Ra8 2 Rexf7 Rxa3 only helps Black.

1 ... Nc8

If Black allows 2 a4 and 3 a5 he can safely resign.

2 Ra8

Not 2 Rc7 Nb6—it's the a-pawn that matters, not Black's c-pawn.

2 ... Nb6

Otherwise 3 a4, 4 a5 and 5 b6 is curtains.

3 Rxf8+!

Another case of "What stays on ..." The White rook on the seventh rank looked impressive but this trade leaves Black's remaining pieces badly placed to stop a queenside pawn charge.

3 ... Kxf8
4 Nc3 Rg5

Otherwise 5 a4 and 6 a5 decides.

5 a4 Nd5
6 h4 Re5

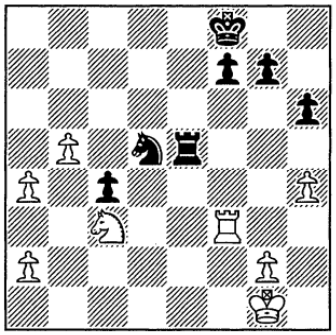

Diagram 108

7 Nxd5 Rxd5
8 b6!

Black's rook is active, but not active enough (8 ... Rd1+ 9 Rf1 Rd2 10 Rb1!).

8 ... Rd2
9 b7 Rb2
10 Rb3! Resigns

Once you have a passer, your task can usually be summed up in a few words: *Push your pawn, don't let him push his*. The most dangerous counterplay an opponent can devise, aside from an endgame mating attack, is to create his own passed pawn.

True, you can't contain him forever. Eventually, you'll need your pieces to help your pawns and that will give the defender his best

opportunities in the ending. However, the good technician knows when to slow-up the enemy counterplay, and when to turn attention back to his own pawns.

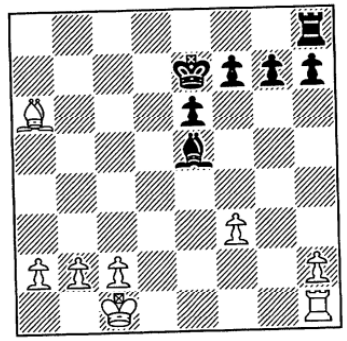

Diagram 109 Kasparov–Mchedlishvili, Bled 2002
White to play

1 a4

Not only is the a-pawn the furthest from Black's defenses, it would promote on a square controlled by White's bishop.

1 ... Rd8
2 h3!

Simple precaution. White will need the help of his rook or king to promote a pawn. So, he makes sure Black won't have counterchances from ... Bxh2 and ... h5-h4 once White's rook leaves h1.

2 ... Rd4

Black can make dual-purpose moves as well as White. This inhibits White's progress with b2-b4 and a4-a5, and at the same time threatens ... Rf4xf3.

Note that a trade of rooks would help Black because he could post his bishop on the g1-a7 diagonal and slow the advance of the queenside pawns.

3 Bb5 Rf4

Black is too slow after 3 ... Kd8 4 c3 Rf4 5 Rd1+ Kc8 6 Rd3.

4 Rd1!

This stops the Black king from blockading the pawns and threatens a5-a6-a7. White can afford to lose the f-pawn (rather than the h-pawn) because he can stop promotion easily.

4 ... Rxf3
5 a5 Rf5
6 Rd7+ Kf6

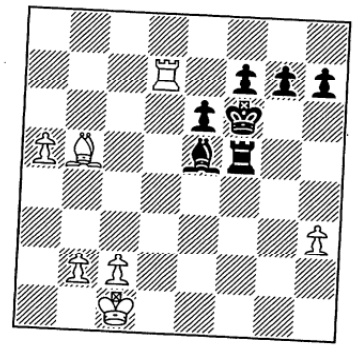

Diagram 110

Black threatens 7 ... Bf4+ and 8 ... Rxb5.

7 Rb7!

There was still a way to throw away the win. In fact, White could lose with 7 c4?? Rf1+ 8 Kc2 Rf2+ 9 Rd2 Rxd2+ 10 Kxd2 Bxb2 11 c5? Ba3!, when Black will stop the queenside pawns and be ready to push his own.

7 ... Bf4+
8 Kb1 Be3
9 a6

White's rook is perfectly placed to support the pawns.

9 ... Rd5
10 b4 Rd8
11 c4 Resigns

If the defender does manage to create a blockade, you need to break it. If it's unbreakable, you switch gears and exploit the absence of the blockader from the other wing. This is why having pawns on both wings is usually crucial.

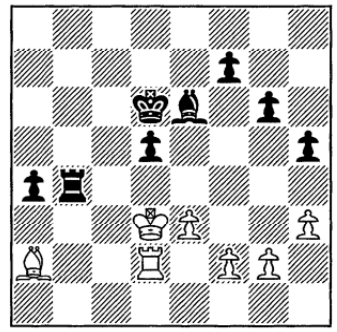

Diagram 111 Stohl–Zviagintsev, Portorož 1999
Black to play

Black has a passed pawn but the bishop at a2 stands in its path. To win, Black must use his king.

He can prepare the king's advance with 1 ... a3 2 Kc3 Kc5 (not 2 ... Rb8? 3 e4!), and then 3 Rd4 Rb2 4 Rd2 Rxd2 5 Kxd2 d4!. But, White defends better with 3 Bb3.

1 ... d4!

This temporary sacrifice breaks the blockade at a2 and allows Black's king to reach d5.

2 exd4 Bxa2
3 Rxa2 Kd5

Now 4 Kc3 Rc4+! 5 Kd3 Rxd4+ or 5 Kb2 Kxd4 makes matters worse.

4 Rc2 Rxd4+
5 Kc3 a3!

This forces White to commit one of his pieces to stopping the a-pawn.

6 Ra2

On 6 Kb3 Rd3+ 7 Kb4 f5 and Black's king sweeps up the kingside (8 Re8 a2 9 Ra8 Rd2 or 8 Ra2 Ke4 9 Rxa3 Rxa3 10 Kxa3 f4! 11 Kb4 f3 12 g3 Kd3 and ... Ke2).

6 ... Ra4
7 Kb3 Ra5

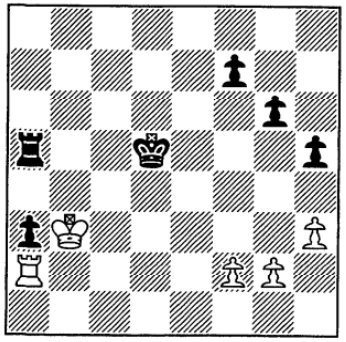

Diagram 112

This is what Black had in mind when he played 1 ... d4. The pawn endings are easily won (8 Rxa3 Rxa3+ 9 Kxa3 Kc4! 10 Kb2 Kd3 and ... Ke2xf2, or 8 Re2 a2! 9 Rxa2 Rxa2 10 Kxa2 Kd4 11 Kb3 Kd3). Therefore, Black has time to probe both wings.

8 Rd2+ Ke4
9 Ka2

There's no progress to be made on the queenside now, so Black needs a point of entry on the kingside.

9 ... Rg5!

Now 10 Kxa3 Rxg2, and 10 g3 Ra5! or 10 ... Kf3 are lost.

10 f3+ Ke3
11 Rc2 Ra5!

White's helplessness is shown by 12 Ka1 a2 or 12 h4 Ra7 (to stop 13 Rc7) and ... Kf4-g3. So ...

White Resigns

While creating a passed pawn is ultimately the key to victory, it is rarely enough to win, and is sometimes not even the first priority. If that sounds strange, consider what happens in the middlegame. You know that checkmate is the ultimate goal in chess, but you rarely win by direct attack on the enemy king. So, you pursue other goals using other weapons before you are ready to even think about mate.

The same goes for the ending. You know you will probably need a passed pawn to win. But before you're ready to do that you often employ other techniques—trading pieces, improving piece activity, and restricting the enemy. That was Black's order of battle in the next example.

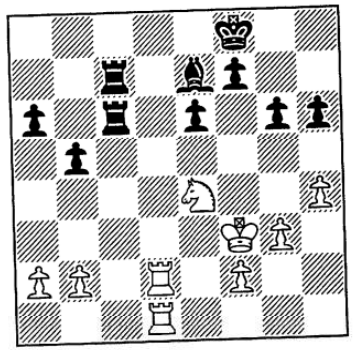

Diagram 113 Dzindzichashvili–Wolff, U.S. Championship 1995
Black to play

1 ... Rc2!

White cannot allow ... Bb4 and ... f5. For example, 2 Ke3 Bb4 3 Rxc2 Rxc2 4 Rb1 f5! and Black wins.

White is also losing after 2 a3 f5, e.g. 3 Nd6 Bf6 4 Rxc2 Rxc2 5 b4 Rc3+ or 3 Nc3 Rxd2 4 Rxd2 Bxa3!.

2 Rxc2 Rxc2
3 Rd2

Of course, the trades should help Black but 3 Rb1 f5 4 Nc3 is doomed to suffocation by 4 ... Bf6 5 Nd1 Bd4! and ... e5-e4+.

3 ... Rxd2
4 Nxd2 Bf6!

To win Black needs either a passed kingside pawn, or an invasion route to the queenside for his king, or both. His last move will open up c3 for later exploitation by the king.

Black isn't calculating as far as ... Kc3, of course. But, he is thinking in general terms about what the board may look like in 20 or so moves.

5 b3 Bd4
6 Ke2 Ke7

Now 7 Nf3 Bb2! severely limits the knight and king, e.g. 8 Kd3 Kd6 followed by ... Kd5.

7 f3

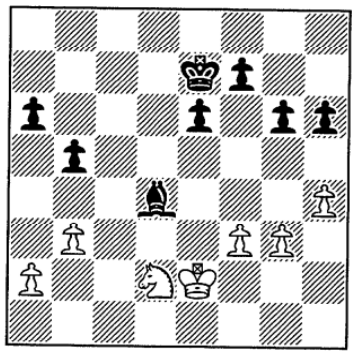

Diagram 114

7 ... h5!

Amateurs are often amazed at the way masters advance the winning pawn long before it became clear it was the winning pawn. This move shortens the game considerably by targeting the g3 pawn for elimination (by ... Bf2 or ... f5-f4). Then White's h-pawn would be doomed and Black's h-pawn turns out to be the money pawn.

8 Kd3 Bf2
9 Ne4 Bb6
10 a4

Black's king takes over after 10 Nc3 f5 11 Ne2 Bf2, e.g. 12 a4 bxa4 13 bxa4 e5 (so that he can play ... Kd5 without fearing Nf4+) 14 Kc3 Be1+! 15 Kc4 Kd6 16 Kd3 Kc5.

10 ... bxa4
11 bxa4 f5
12 Nd2 Bf2
13 Nf1

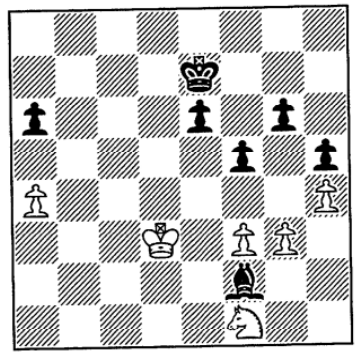

Diagram 115

The knight is no better placed here than on e2 in the last variation. Black could proceed with 13 ... Kd6 (14 Kc4 e5) or:

13 ... f4
14 gxf4 Bxh4
15 Nd2 Kd7

Black takes the cautious path. He will shift his king to c6 (avoiding Ne4 with check) before he tries to cash in the h-pawn.

16 Ne4 Be7
17 Nf2 Kc6

Threatening 18 ... Kc5 19 Kc3 Bf6+ 20 Kb3 Kd4 or 20 Kd3 Kb4.

18 Kc4 Bd6
19 Nh3 h4
Resigns

Resignation seems premature, but the h-pawn and targets at a4 and f4 mean zugzwang is nigh. After 20 Kd4, it can come about by way of 20 ... Kb6 21 Kc4 Ka5 22 Kb3, and then the tempo-losing maneuver 22 ... Bb8 23 Ka3 Bc7! 24 Kb3 Bd6! must win a second pawn in this position:

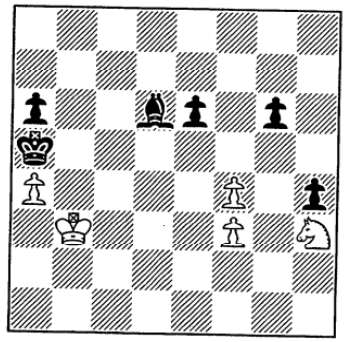

Diagram 116

That would still leave Black a long way from queening. But a two-pawn edge requires much less effort to convert. For example, 25 Ng5 Bxf4 26 Nh3 (or 26 Nxe6 h3) e5 27 Nf2?! Be3 28 Nh3 g5 and 29 ... e4 30 fxe4 g4.

Note that Black's extra pawn was on the kingside yet his king ended up on the queenside. This is not unusual; it is a customary theme. The reasoning runs this way: *If you and your opponent have the same number of pieces (king and bishop against king and knight in the last case) then winning will often depend on creating a two-versus-one mismatch on one wing*. This is commonly done by forcing your opponent's king to stay near your extra pawn on one wing while your king runs to the other and wreaks havoc. Your opponent can choose on which side of the board he will lose.

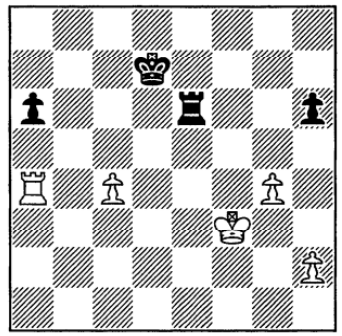

Diagram 117 Ivanchuk–Anand, Linares 1994
White to play

Let's go through the rundown:

Who is ahead in material and by how much? White is a healthy pawn up.

What are his assets? A fairly mobile king, a passed c-pawn and the likelihood of creating a second passer on the kingside.

What's the mood? Fairly quiet. Black has no counterplay. His rook is tied to the defense of a6. And if his king tries to relieve it with ... Kc7-b7, he leaves his lonely rook to try to stop White's progress on the kingside.

What about trades? Swapping rooks should probably be avoided because Black has the outside passed pawn and that may count more than an extra pawn.

The conclusion to draw is that White should win. But, in the absence of a concrete plan, it will require several moves and at least two winning ideas. Essentially, he can win if his king supports a passed c-pawn or g-pawn and there is no enemy king around to stop him. Ultimately, it's the kings, not the rooks, that usually decide such endings.

1 c5 Rc6

Not 1 ... Re5? 2 Rxa6 Rxc5 3 Rxh6 because two extra pawns supported by a king must win.

2 Ra5

White prepares Ke4-f5 followed by h2-h4 and g4-g5. On 2 ...

Ke6? 3 Ke4 Kf6 4 Kd5! Re6 5 Ra4 and c5-c6-c7. Then the king and c-pawn out-muscle the rook. This is what a winning mismatch looks like.

2 ... Rf6+
3 Ke4 Re6+!

But 4 Kd5 Rg6 (followed by ... Rg5+ or ... Rxg4) shows what happens when Black's king is close enough to prevent a mismatch.

4 Kf5 Ke7
5 h4 Kd7
6 Ra4!

White's king can't make further progress single-handedly because Black's rook and king cooperate in defense, e.g. 6 g5 hxg5 7 hxg5 Ke7 8 g6 Rc6 9 Kg5 Kf8 10 Kh6 Kg8.

6 ... Rc6
7 Rd4+ Ke7

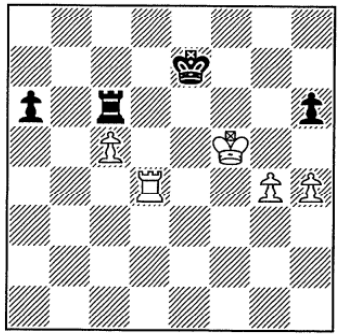

Diagram 118

8 Re4+!

This seemingly innocuous move decides the game because Black's king must make a choice. If it goes to d7, it is cut off from the kingside. That means once White protects his c-pawn, Black has only his rook to stop the king and pawn (a fatal mismatch).

For instance, 8 ... Kd7 9 Re5 a5 10 g5 hxg5 11 hxg5 a4 12 g6 a3 13 g7 and the first player to queen will deliver mate—13 ... a2 14 g8(Q) a1(Q) 15 Qe8+.

On 13 ... Rc8 White wins with 14 Kf6 or 14 Kg6 or even 14 Re3 Rxc5+ 15 Kf6.

8 ... Kf7

Now 9 Re5 a5! allows Black's king to defend on the kingside. If White tries for a queenside mismatch, Black gets back in time (10 Ke4 a4 11 Kd5 Ra6 12 Re2 a3 13 Ra2 Ke7).

9 Rc4 a5
10 Ke5

Simplest. Now 10 ... a4 11 Kd5 Ra6 12 c6 and White's pawn is faster, e.g. 12 ... a3 13 c7 Ra5+ 14 Ke4.

10 ... Ke7
11 Kd5 Kd7

Black's king must shadow White's. But, that frees White's rook.

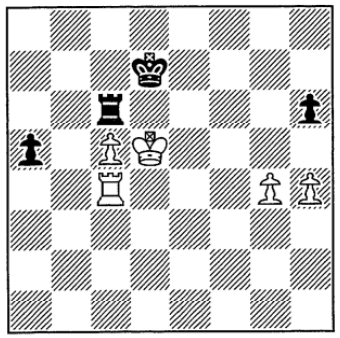

Diagram 119

12 Rf4!

White threatens to win with 13 Rf7+ Ke8 14 Ra7 or14 Kxc6. And on 12 ... Ra6 13 Rf7+ Ke8 14 Rg7 a4 15 c6, the threats of 16 c7, 16 Kd6 and 16 g5 are more than enough.

12 ... Rg6
13 h5 Rg5+

Black's rook is fatally immobile now.

14 Kc4 a4
15 Kb5 a3
16 Ra4 Resigns

The end could have been 16 ... a2 17 Rxa2 Rxg4 18 Ra7+ and 19 Rh7 or 19 Ra6 followed by Rxa6. Two passed pawns must win.

If there is play on both wings, as in that case, you will need two plans. And if there is no passed pawn, this means you'll need two weaknesses to exploit. Let's examine a situation with bishops.

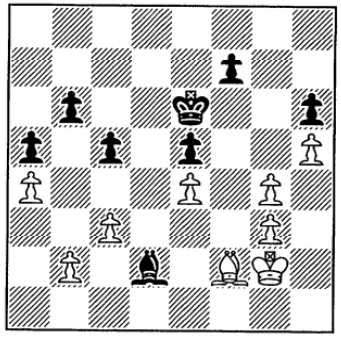

Diagram 120 Kasparov–de Firmian, New York Grand Prix 1995
White to play

White has just traded off queens and the next-to-last pair of minor pieces. But, his extra pawn is doubled and there doesn't seem to be any chance of creating a passed pawn in the immediate future.

Yet, thanks to Black's kingside pawns—fixed on dark squares—White has a weakness to exploit. If he can get his bishop to, say, g7, Black will be tied to the defense of e5 and h6. To win, therefore, White needs a second target. It can only lie on the other wing.

1 Kf3 Kd6

Black sees where the enemy king is headed but he can't stop him (1 ... c4? 2 Bxb6 and Bxa5).

2 Ke2

White faced a typical choice: 2 Be3 might win because after 2 ... Bxe3 3 Kxe3 White threatens 4 g5!. Following 3 ... f6 4 Kd3 and 5 Kc4 he should have enough tempos (or tempi) to win the pawn ending by zugzwang.

But it takes considerable confidence (or calculation) to play 2 Be3. Kasparov makes the practical choice.

This situation arises quite often. There is the *principled move*, the one that seems right for the position, and there is the *practical choice*. The principled move is usually committing. After 2 Be3 Bxe3 the position is either a forced win or a draw. If White has erred in calculation, he's thrown away a half point. The practical choice leaves options open. In the post-mortem, the players may agree that it's second-best—but in the long run it saves a lot of half points.

2 ... Bc1
3 Kd3!

A little finesse to gain control of c4, the gateway to the queenside. On 3 ... Bxb2 White has 4 g5 or 4 Be3, threatening Kc2 as well as Bxh6.

3 ... Kc6
4 Be1 Bg5
5 Kc4 Be3
6 b4!

This is the break White needs to expose a second weakness, at b6. He wins after 6 ... axb4 7 cxb4 f6 (not 7 ... Bc1 8 bxc5 bxc5 9 Bf2) 8 b5+ and 9 a5.

6 ... cxb4
7 cxb4 axb4
8 Bxb4

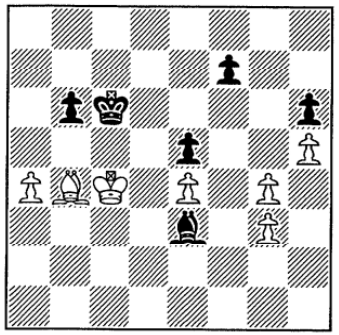

Diagram 121

White's bishop is freed for Bf8-g7 while Black's is still limited (8 ... Bf2? 9 g5).

8 ... Bc1
9 Bf8 Bg5
10 Bg7 f6

Black's position appears solid, but look further and you'll notice something else about it.

11 Bh8!

That's it: Black had no good moves. White's pass with the bishop creates zugzwang.

11 ... Kd6
12 Kb5

With his king joining the attack on b6, all White needs is to bring the bishop back into action.

12 ... Kc7
13 Bg7 Kb7
14 Bf8 Kc7
15 Be7! Kd7

Not 15 ... Kb7 16 Bd8, winning a pawn.

16 Bb4

Now 15 ... Kc7 16 Be1 and the threat to win the pawn with 17 Bf2 leads to 16 ... Be3 17 g5!, much like the game.

16 ... Be3

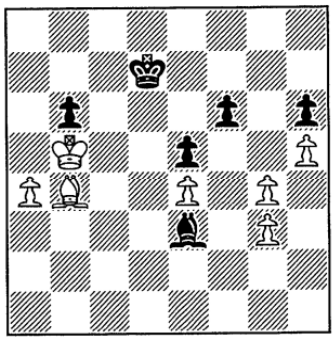

Diagram 122

17 g5!!

The extra pawn performs a service after all. One rook pawn scores after 17 ... hxg5 18 h6. The other does after 17 ... Bxg5 18 Kxb6.

17 ... fxg5
18 g4!

By stopping 18 ... g4, White must win the h-pawn (19 Bf8). Black went through the motions of trying to stop White's h-pawn with 18 ... Ke6 but after 19 Kc6 Bd4 20 Bd6! he resigned in view of Bc7xb6.

The message is simple: *To win a typical material-up ending, you need a passed pawn.* Even when you have that, you'll probably need a second plan. Look for that plan and you'll probably find it.

QUIZ

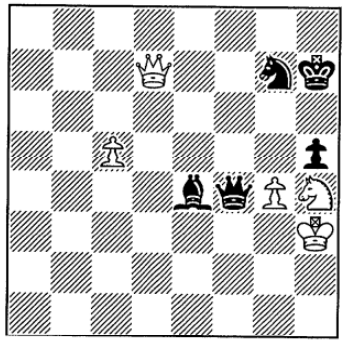

Diagram 123 Tal–Spraggett, Montpellier 1985
Black to play

With an extra piece, Black seems poised to win in any number of ways, including the ingenious 1 ... Bf5. Which is best?

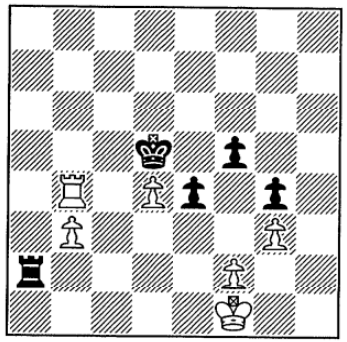

Diagram 124 Pelletier–Rozentalis, Yerevan 1996
Black to play

The superior king position should mean something, even though Black is a pawn down. What can he do?

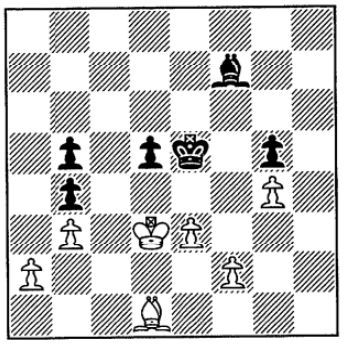

Diagram 125 Pogorelov–Bosque, Badalona 1994
White to play

White has an extra pawn, but his bishop doesn't play. Draw?

White has to exercise some care because 6 g5+ Kg7 7 f6+?? Kf7 allows Black to hold (8 Kg4 Bd1+ 9 Kf5 Bxh5).

6 ... Bd3

Black's only hope is that White will push his g-pawn too quickly...

7 g5+ Kh7

... such as with 8 g6+?? Bxg6! and Black draws.

8 f7! Kg7
9 g6 Resigns

Black didn't wait to see if White would fall into the final traps. One goes 9 ... Bc4 10 Kg5 Bxf7 11 h6+ Kf8, and now 12 gxf7?? Kxf7 draws. But, 12 h7! Kg7 13 gxf7 wins. Or 9 ... Bc2 10 Kg5 Kf8 (10 ... Bd3 11 h6+ and 12 h7 or 12 Kf6) 11 Kf6 Bxg6! 12 Kxg6! and wins. But, not 12 hxg6?? stalemate.

Sacrifices arise regularly in endings when the superior side encounters difficulty creating a passed pawn, or as in the last example, where passed pawns don't win without help. Sometimes sacrifices are the only way to win. In others they are just the fastest means.

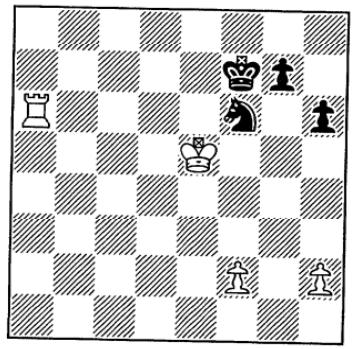

Diagram 128 Georgiev–Korchnoi, Sarajevo 1998
White to play

As noted in Diagram 96, the Exchange can be used to squeeze an opponent to death. But, 1 Ra7+ Kg6 2 Ke6 Ne4 isn't convincing.

A second plan, usually identified with José Capablanca, is to give back the Exchange when you are guaranteed a pawn and other assets as compensation. This often works because you can put the pawn to much better use than the Exchange.

1 Rxf6+! Resigns

Black knew enough about pawn endings to recognize that 1 ...gxf6+ 2 Kf5 would cost him a pawn—and the game—due to zugzwang.

In fact he would lose both his pawns: 2 ... h5 3 h4! Kg7 4 Ke6 Kg6 5 f4! Kg7 6 f5 or 5 ... f5 6 Ke5 Kg7 7 Kxf5 Kf7 8 Kg5.

The basic criterion for material conversion is: *What you get in return for any material given up should be something tangible that brings you closer to victory.*

In the middlegame, sacrifices are offered in exchange for vague compensation such as "the initiative" or "pressure." But in the endgame, you want something more solid, something you can take to the bank.

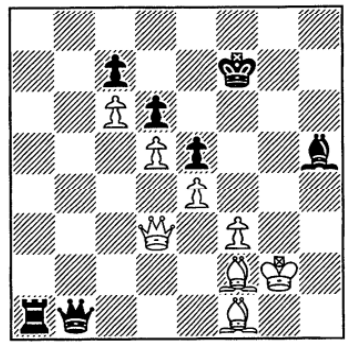

Diagram 129 Oosterom–Timmerman,
World Correspondence Championship 2001
Black to play

Black maneuvered for the previous 20-plus moves to obtain the best squares for his pieces. But he was not been able to break White's defenses. Nevertheless, that was the proper order of business: First you try to squeeze and when that fails, look for the best conditions for "Capablanca."

CHAPTER 6

Material Alchemy

The piece-for-piece exchanges we looked at in Chapters Two and Four are the most common way that a position will change as it heads deeper into the ending. But, there is another important form of transformation—the conversion of one advantage into another.

This is one of the greatest technical skills because it requires a player to compare material with positional assets and sometimes to turn one into the other. In the middlegame this commonly occurs in sacrifices. Don't let anyone tell you these don't exist in endgames.

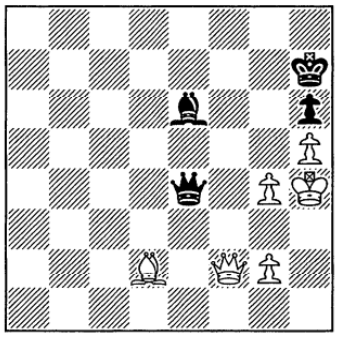

Diagram 126 Aseev–Bagirov, Leningrad 1989
White to play

This is the type of position that was once dismissed by annotators as "drawish", if not "a hopeless draw", because of the infamous bishops of opposite color. Even with two extra pawns and the mating potential of his queen, White can find it extraordinarily difficult to make progress. For example, 1 Qa7+ Kg8 2 Qb8+ Kh7 doesn't get him any closer, and neither does 1 Bf4 Bd5.

1 Qf3! Qxf3

Black can't afford to lose a third pawn, e.g. 1 ... Qb1? 2 Qe3 or 1 ... Qd4 2 Bxh6 Kxh6 3 Qf8+ Kh7 (3 ... Qg7? 4 g5+ Kh7 5 g6+) 4 Qe7+.

2 gxf3

This is a easy win, provided that White converts his material advantage into something more usable.

What's more usable? Three connected passed pawns. They would win even if White doesn't have a bishop. And therein lies the key; White should sacrifice the bishop for the h-pawn.

2 ... Bb3
3 f4!

Once White understands the basic idea, all he has to do is visualize the ideal position for the sacrifice. He can afford to take time for this because Black has zero counterplay. After some thought, White realized he needed his pawns on f5, g4, and h5.

3 ... Bc2
4 f5 Kg7
5 Bxh6+!

Once again: it's not what goes off the board, it's what stays on.

5 ... Kxh6

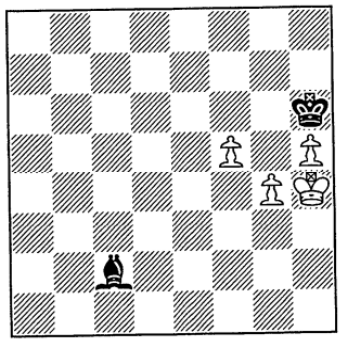

Diagram 127

6 f6!

1 ... Qxf1+!
2 Qxf1 Rxf1
3 Kxf1 Bxf3

In strict material terms, Black's sacrifice is minimal so far. But, the position is dead won because White's pawns fall like bowling pins.

4 Be1 Ke8!

An ounce of precaution to defend his own pawn chain against Ba5xc7.

5 Ba5 Kd8
Resigns

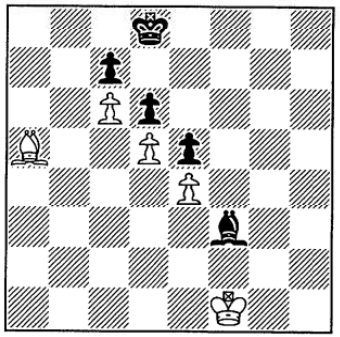

Diagram 130

Black didn't just gain a pawn by returning the Exchange. He guaranteed the win of all four pawns. That easily meets our criterion—something tangible that brings Black closer to victory.

Now for a more difficult example. It also features an extra Exchange, but should take quite a bit longer to appreciate because of the many different material imbalances that could occur.

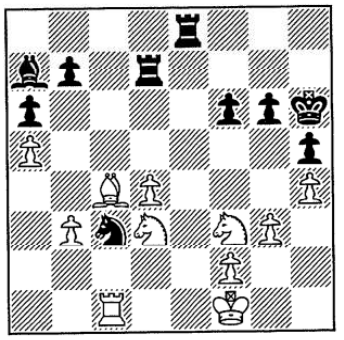

Diagram 131 Tal–Agzamov, Sochi 1984
Black to play

The key elements of this position arose more than 30 moves before when Black's bishop was on the a3-f8 diagonal and his knight was on b4. Black took his time, testing various means of trying to make his Exchange count.

Finally, after many, many maneuvers, he brought the knight to c3 and now:

1 ... Ne2
2 Re1 Rde7

Black threatens 3 ... Nxd4. White is lost after, for example, 3 Nc5? Nxd4! 4 Rxe7 Rxe7 (5 Nxd4 Bxc5) because there are so many pawns left on the board.

The Exchange is usually sufficient to win when there are pawns on both wings because the rook's ability to attack from long range proves superior to the offensive or defensive powers of a minor piece.

When there are pawns on only one wing, the win is usually much tougher—but that is the best Black can expect from such a position as this.

3 Bd5

Only slightly better than 3 Nc5? was 3 d5 because of 3 ... Nd4! 4 Rxe7 Rxe7 5 Nxd4 Bxd4 and ... Bc3.

3 ... Bxd4!

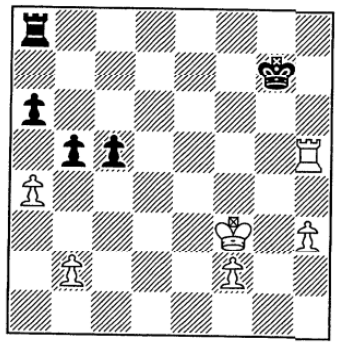

Diagram 134 Morozevich–Grischuk, Dubai 2002
White to play

White is only a pawn up, but is about to add a second from the queenside. However, the obvious 1 Rxc5 is an error.

The reason is that if all the queenside pawns are liquidated (1 Rxc5? bxa4 2 Ra5 Rb8 3 Rxa4 Rxb2 4 Rxa6) we end up with that notorious exception to endgame theory mentioned back at Diagram 47—rook, bishop pawn, and rook pawn, against rook. So:

1 axb5!

Now 1 ... axb5 2 Rxc5 is a somewhat simple win because of the presence of an extra pair of pawns. For example, 2 ... Ra5 3 b4 Ra3+ 4 Kg2 and Rxb5 leaves White with three extra pawns.

Better is 2 ... Rb8, but following 3 b4 Kg6 4 Ke4 and Kd5-c6, White will capture the b-pawn. Even if Black picks up both the f- and h-pawns (a tall order) the White b-pawn will march on to victory.

1 ... c4!

A good try. Now 2 b6 Rb8 3 Rc4 Rxb6 or 2 bxa6 Rxa6 3 Rb5 Rc6 and 4 ... c3 offers excellent drawing chances.

2 Ke3! Kg6
3 Rc5 axb5

Black no longer had any choice in view of 4 Rc6+ or 4 Rxc4.

4 Rxb5

The approach of White's king means that 4 ... Rc8 5 Kd4! stops 5 ... c3 and insures that Rb4xc4 will win.

4 ... Rd8!
5 Rb4! Rd3+
6 Ke2 Rxh3
7 Rxc4 Rb3
8 Rc2 Kf5

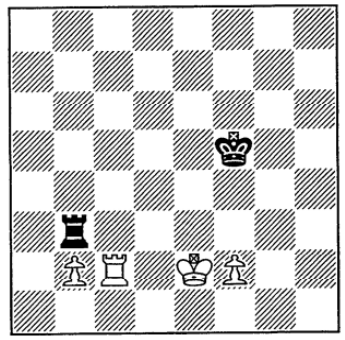

Diagram 135

White has accomplished his conversion: It's now rook and two pawns against rook. But, it's a winning pawn pair, not the f-pawn and h-pawn exception.

As usually happens with favorable conversions, this one came with a price: Black's pieces have become more active than White's. But this mood is temporary because Black has no counterplay (no pawns of his own to promote). He can only harass by way of checking or by threatening a pawn when one is unprotected.

The key here is that if Black uses his king to win the f-pawn, it will be much too far away to stop the b-pawn.

9 Kd1! Ke4
10 Rd2! Rb8!

Black adopts the best defense; he must not allow the White pawn to get to the fifth rank because then the king can shepherd it to the eighth rank. For example, 10 ... Kf3? 11 Kc2 Rb6? 12 Kc3 (intending 13 b4) Rc6+ 13 Kb4 Rb6+ 14 Kc5 Rb3 15 Kc4 R-moves 16 b4 and wins.

Not 3 ... Nxd4? 4 Nxd4 Bxd4 because of 5 Bxb7!. Then Black has made a very bad conversion—indirectly trading a good queenside pawn for the White d-pawn.

After 5 ... Rxe1+ 6 Nxe1 Bc3 7 Nd3 Rb8 8 Bxa6 Rxb3 9 Bc4 White has drawing chances.

4 Bxb7!

The best try. Following 4 Nxd4 Nxd4 5 Bxb7 Black has 5 ... Nxb3 and ... Nxa5, and there are only kingside pawns left on the board. Black would still have winning chances because he can create a passed pawn with a well-timed ... g5!.

Moreover, 4 Rxe2 Rxe2 5 Nxd4, which seems to win material, allows Black to complete his combination with 5 ... Rd2 6 Bc4 Rd8 7 Ne6 R8xd3 and wins.

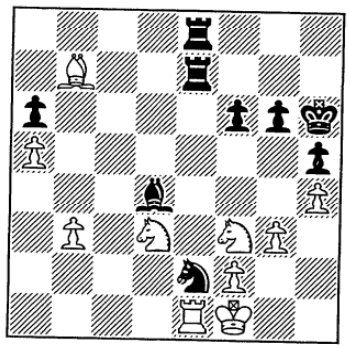

Diagram 132

Now 4 ... Rxb7 5 Nxd4 Rd8? fails to 6 Nc5! and White is the one playing to win.

4 ... Bc3!

Black finds a forcing solution. Any move of the attacked rook allows 5 ... Rxb7 after which Black coasts to victory with an extra rook.

5 Bxa6! Bxe1
6 Nfxe1 Ra8
7 Nc5 Nd4

Here 8 Ned3 would invite another combination—8 ... Nxb3! 9 Nxb3 Rxa6. Then White can keep his a-pawn, but he's down the double Exchange, and quite lost.

8 b4 Rxe1+!

This is a perfect time for "Capablanca." Black gets both queenside pawns as compensation.

9 Kxe1 Nc2+
10 Kd2 Nxb4
11 Bc4 Rxa5

Not 11 ... Rc8? 12 Kc3!, which puts White back in the game (12 ... Nc6 13 a6).

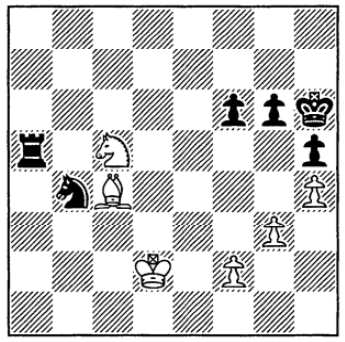

Diagram 133

There's still a bit of smoke to clear, but matters have simplified enough to realize how much Black has improved his chances since Diagram 131. White's extra pawn is gone, and even though the queenside has been liquidated, Black has excellent winning prospects. He eventually won after ... g5 created a strong passed h-pawn.

When material conversions involve trades of pawns, you must keep passed pawns in mind. Not all passers are destined to queen. Some can be easily blockaded. Figuring out in advance which passed pawns are the right ones to have is a skill in itself.

And even when you end up with the right pawns, sometimes you have to decide which of them has the best chance of promotion—and when to abandon the others.

11 Kc2 Rc8+
12 Kb1 Rb8
13 Rc2!

White sees a way of making slow progress: 14 Rc3, 15 b3, 16 Kb2, and so on.

13 ... Kf3

Black tries to prevent the rook from leaving the second rank.

14 Ka2?

White begins to "swim," convinced that the endgame was so easily won that it would win by itself. This is the first of several opportunities he ignores to convert his two-pawn edge to a dead won one-pawn-up ending.

White has to realize it is the b-pawn that can be promoted most easily. After 14 Rc4! Kxf2 15 Kc2 Ke3 16 b4 we've reached a typical book win; Black's king is cut off and White cannot be stopped from the relentless progress of 17 Kc3, 18 Rc5, 19 Kc4, 20 b5, and so on.

14 ... Ra8+
15 Kb3?

"Where the king is heading for is a big secret," White sarcastically wrote about his aimless play.

15 ... Rb8+
16 Ka4 Ra8+
17 Kb5 Rb8+
18 Ka6 Ke4

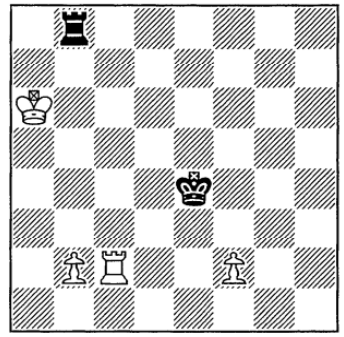

Diagram 136

Black exploits what is known as the "checking distance." This is a defensive tactic based on harassing checks that last until the king is close enough to attack the rook (not 18 ... Ra8+? 19 Kb7 Ra5 20 Kb6 Ra8 21 b4 or 19 ... Ra4 20 Kb6 followed by 21 Kb5 and 22 b4).

19 Ka5??

The great thing about big material edges is that you can usually start over. Here White can still win by cutting off the Black king (19 Rd2!). Note that the rook cannot be attacked on d2. Then White can bring his king back to a2 or b1 to protect the b-pawn and sacrifice the f-pawn in a manner like the one mentioned in the note to move 14.

19 ... Kd3!

On c2 the White rook cannot be defended nor can it safely leave the b-pawn. The game was drawn after 20 Rc3+ Kd4 21 Rc2 Kd3 22 Rc3+ Kd4.

Note that on 19 ... Kf3?? White could have carried out his plan—20 b4! and if 20 ... Ke4? 21 b5! and White wins because Black no longer has the checking distance (21 ... Ra8+ 22 Kb6 Rb8+ 23 Ka6 Ra8+ 24 Kb7! and 25 b6).

One of the most famous material conversions was carried out by Bobby Fischer in his 1972 world championship match with Boris Spassky. Fischer nursed an extra pawn into an ending in which each side had a rook, but there were bishops of opposite color.

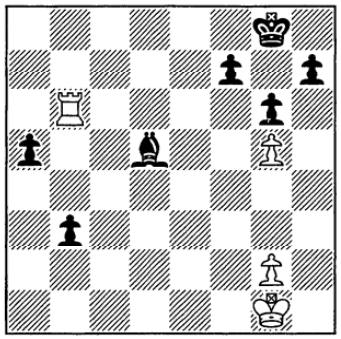

Diagram 139

White resigned after 14 Ra6 Be4! 15 Rb6 a4 16 Kf2 Bd5 17 Ke3 a3. In some lines Black can even sacrifice the bishop (14 Rb5 a4! 15 Rxd5 a3 and a pawn must queen).

The pieces that most often benefit from an endgame sacrifice, temporary or permanent, are the king and knight. This is because other pieces generally get to the best squares through normal means, or they find other squares that are just as useful.

But for knights and kings, there is usually one square that stands out. In the following, Black's considerable positional edge is realized only after he has access to e5. First his king, and later his knight, will use it to great effect.

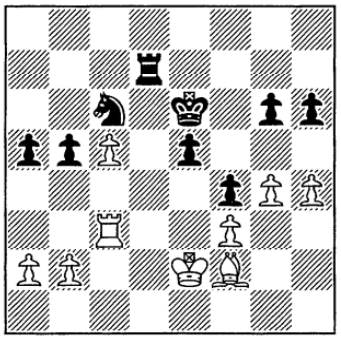

Diagram 140 Radjabov–Svidler, Russia–Rest of World match 2002
Black to move

Material is even but Black's blessings include a more advanced king, control of the open file, and a superior minor piece. But, how does he make progress?

Certainly not by 1 ... Nd4+? 2 Bxd4 Rxd4 3 c6! or 2 ... exd4 3 Rc1 and 4 Kd3 or 4 c6.

1 ... e4!
2 fxe4 Ke5

If White allows 3 ... Kxe4, he faces tricks such as 4 ... f3+! 5 Rxf3 Rd2+ 6 Kxd2 Kxf3 and Black wins on the kingside. White is also lost after 3 Rd3 Rxd3 4 Kxd3 Nb4+.

3 Kf3 Rd2
4 a3!

Good defense. Now 4 ... Rxb2 gives White the d-file–5 Rd3! followed by checks at d5 and/or d6.

4 ... b4!
5 axb4 axb4
6 Rc1

White is near zugzwang after 6 Rb3 g5.

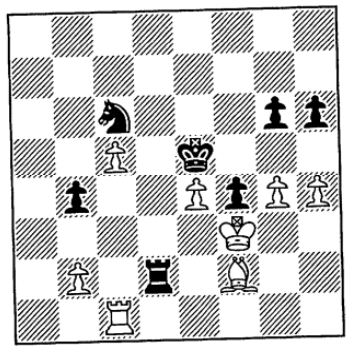

Diagram 141

6 ... Ke6!

Black clears e5 for the knight check, e.g. 7 Be1? Ne5+ 8 Kxf4 Rd3 and 9 ... Rf3 mate. Or 7 Rb1 Ne5+ 8 Kxf4 Rxf2+ and 8 Kg2 Nd3.

7 Kg2 Rxb2

Material equality is restored but Black has two passed pawns and a choice of execution plans (... b3 followed by ... Rc2 and ... b2, or ... Ke5xe4 and ... f3+).

White finally got his rook to the d-file (8 Rd1!) and that kept the game going: 8 ... Ne5 9 Rd6+ Ke7 10 Kg1 Rc2 11 Rb6 Nxg4 12 Rb7+ Ke6 13 Be1 (13 Bd4 f3!) Rc1 14 Rb6+ Ke5 15 Rxg6 Rxe1+ 16 Kg2 Ne3+ and White gave up.

King position plays an even more vital role in situations like the following. It features two sacrificial ideas for Black and one for White.

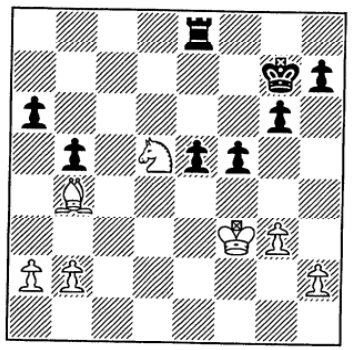

Diagram 142 Kempiński–Rogozenko, Hamburg 1999
Black to play

Material is roughly balanced, and chances would be too—provided that White can coordinate his pieces better. For example, if his bishop were at d6 he would have good prospects after 1 ... Kf7 2 Nc7! e4+ 3 Ke3 Rd8 4 Bf4.

1 ... Rc8!
2 Bc3

White had to stop ... Rc2.

2 ... Kf7!

Black's king advances to support his pawn majority, without fear of 3 Bxe5?? Rc5.

3 a3 Ke6
4 Nb4 a5
5 Nc2 g5!

Now 6 Ne1!, threatening Bxa5 and preparing to freeze the king-side pawns with g3-g4, is best. But, Black would still have serious winning chances after 6 ... a4 7 g4! Rc4! 8 gxf5+ Kxf5 9 Ng2 g4+ or 9 Nc2 Rf4+ 10 Kg3 Ke4.

6 g4

White dreams of blockading the Black pawns on light squares (7 gxf5+ Kxf5 8 Ne3+ and Ke4).

6 ... f4
7 Ne1

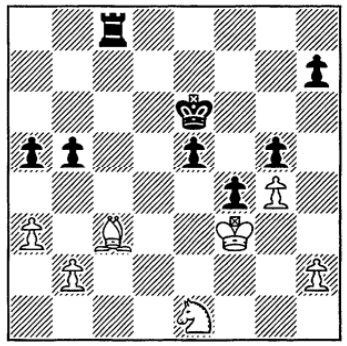

Diagram 143

White's threat of Bxa5 enables him to meet 7 ... a4 with 8 Nd3 followed by Nf2! and Ke4 or Ne4.

Black should appreciate that breaking the blockade is worth a sacrifice. There are two sacks that come to mind. The first is 7 ... Kd5! and then 8 Bxa5 e4+.

White can put up a defense with 9 Kf2, after which Black has to be careful that his opponent doesn't make a sacrifice of his own—giving up a piece for the e- and f-pawns to scrape up drawing chances. For example, 9 ... e3+ 10 Kf3 Kd4? 11 Bb6+ Kc4 12 h4 Kb3 13 Bd4 h6 14 hxg5 hxg5 15 Bf6 Rc5 16 Ng2 and Nxe3.

Despite his material minus, White has a promising game if he's allowed to organize his forces, e.g. 6 ... Re7 7 Qd3 Qf4 8 f3 followed by Ne2-g3, Rae1 and f3-f4.

6 ... Rxe4!

A counter-sacrifice of the Exchange that nets the key pawn.

7 Qxf6+ Nxf6
8 Nxe4 Nxe4

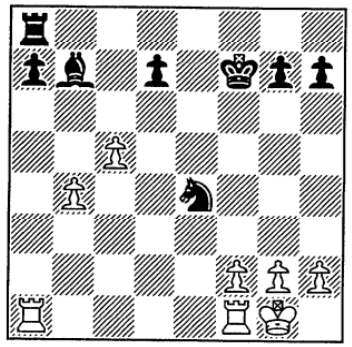

Diagram 146

Material is only slightly in Black's favor now. These kinds of positions are not won by pushing a passed pawn because there isn't one to push. Instead, Black has to coordinate his pieces to the maximum and concentrate them on vulnerable points in White's camp.

9 f3 Nc3!
10 Ra3 Nb5
11 Rd3 Bc6

The minor pieces coordinate well: Everything is protected on the queenside.

12 Rfd1 Re8

Nevertheless, Black has to be careful about a third sacrifice. He could activate his rook with 12 ... a5 13 bxa5 Rxa5, but White complicates with 13 Rxd7+! Bxd7 14 Rxd7+ Kf6 15 Rb7 N-moves 16 b5.

This means Black should take his time. He can maneuver his forces slowly until his rook is able to attack White's vulnerable points. In the next stage one of White's rooks was nudged into passivity: **13 Kf2 Re6 14 h4 Nc7! 15 g4 Bb5 16 R3d2 Na6 17 Rb2 Nb8 18 Rd4 Ra6! 19 Rb3 Ra2+ 20 Kg3 Re2 21 Kf4 Na6 22 Re4.**

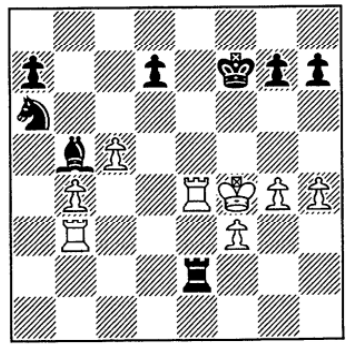

Diagram 147

22 ... Rg2!

A trade of rooks would help White. Black is ready to force another change in the material imbalance.

23 Ra3 Nc7!
24 Rxa7 Ne6+

Now 25 Ke3 Re2 is mate, and 25 Ke5 Rd2! sets up 26 ... Bc6 and 27 ... Rd5 mate.

25 Rxe6 Kxe6
26 Ra5 Bc6
27 b5 Bd5

We are back to where we started—two Black pawns for a White bishop. However, now it is Black whose threats count the most.

28 Ra6+ Ke7
29 c6 Rf2!

Now 30 Ra3 bxc6 31 bxc6 Bxc6 is a long, slow, inevitable win for Black.

7 ... Rxc3+!

Much simpler. Black's king reaches c4 and wins a queenside pawn. Together with two passed kingside pawns, this will create a killing mismatch.

8 bxc3 Kd5
9 Ke2 e4

Now 10 Kd2 Kc4 11 Kc2 f3! and queens. Or 11 Nc2 e3+ 12 Ke2 Kxc3.

10 Nc2 Kc4
11 Nd4

Trying to muddy the water with 11 ... Kxc3 12 Nxb5+ Kb3 13 Nd6 e3 14 Nf7!.

11 ... b4!
12 axb4 axb4
13 Kd1 bxc3

Also winning is 13 ... Kxc3 or 13 ... b3.

14 Nc2

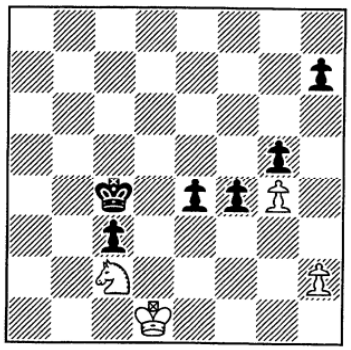

Diagram 144

There is still a chance to put up a defense after 14 ...e3 15 Ke2.

14 ... f3!

White has no good moves, and he resigned following 15 h3 h6 16 Ke1 Kb3 17 Kd1 f2 18 Ne3 c2+.

One final example illustrates how many conversions can occur in a single, sharply played game. The sacrifices begin before the opening is over and last until the late ending:

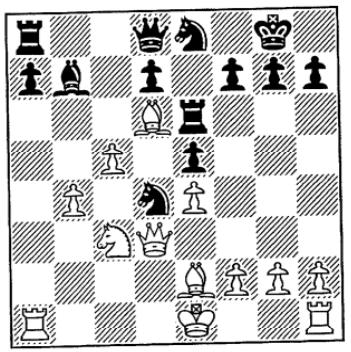

Diagram 145 van Wely–Granda Zuniga, Wijk aan Zee 1997
White to play

The bishop looks impressive on d6. But it is trapped, and about to be captured with the loss of a pawn (since 1 Bxe5 Nxe2! costs more). White gambled on:

1 Bg4 Rg6
2 Bh5

White has two bishops hanging after 2 Bxe5? Nc6!.

2 ... Rg5
3 Bxe5!

The best try. White gets two strong center pawns for a piece.

3 ... Rxe5
4 Bxf7+ Kxf7
5 Qxd4 Qf6
6 0-0

30 c7 Rxf3+
31 Ke5 Bb7

There was one final conversion—32 Rb6 d6+! 33 Kd4 (not 33 Rxd6 Re3+ 34 Kd4 Kxd6 35 Kxe3 Kxc7 and wins) Bc8 34 Rb8 Kd7 35 b6 Rf4+ 36 Kc3 Rxg4!.

Black gave back the piece to create an easy rook ending—37 b7 Bxb7 38 Rxb7 Kc8 39 Ra7 h5 40 Kd3 g6 and White resigned.

The lesson to be learned here: *Always be alert to the possibilities of forcing changes in material—particularly material conversions that yield a tangible asset such as a strong passed pawn.* And make sure you get your money's worth.

QUIZ:

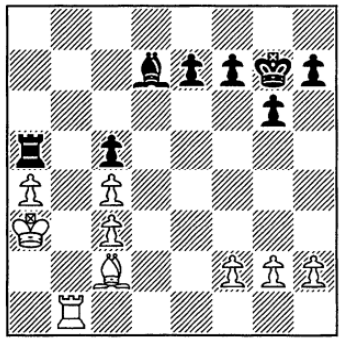

Diagram 148 Vitolinš–Kengis, Riga 1990
White to play

Black seems to have stopped progress on the queenside. How does White change that?

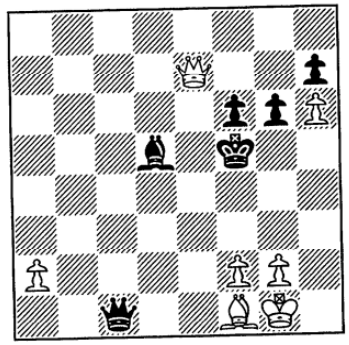

Diagram 149 Cramling–Dončević, Benidorm 1988
White to play

There are several good things about White's position, but there is one problem: White's king and bishop are tied to the first rank and his queen cannot go far from where it is because ... Bc4 would win a piece. What's the quickest win?

CHAPTER 7

King Matters

Besides the basic techniques we've covered so far, the player with the advantage also wields other weapons. These include "king difference," elbowing out, the battle between king and passed pawns, and mate. King matters clearly stand out.

In general, the most powerful non-material edge a player can have in an endgame is a stronger, more active king than his opponent. A significant superiority in the mobility or location of one king over another can turn a drawish position into a one-sided rout.

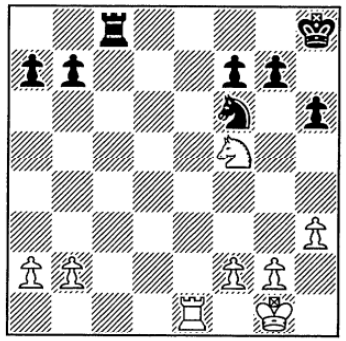

Diagram 150 Shariyazdanov–Pavasovič, Bosnia 2000
Black to play

White threatens Re7 followed by Rxb7 or Rxf7.

1 ... Rc7?

Instead of defending, Black should play 1 ... Rc2! because the activity of his rook should compensate if he loses a pawn.

That's a general rule about a rook on the seventh rank and here it is verified by 2 Re7 Rxb2 3 Rxf7 Rxa2.

Then 4 Rxb7 Nh5! and ... a5-a4 gives Black the counterplay he needs, as does 4 Nxg7 b5.

2 Re7!

Black's rook is passively placed. Why trade it off?

The answer is "king difference." After 3 Nxe7 Black's king can get into the game only by way of ... g6 and ... Kg7 while White's king reaches d4.

2 ... Rxe7

Worse is 2 ... Nd5? 3 Rxc7 Nxc7 since 4 Nd6! wins a pawn.

3 Nxe7

White has an immediate threat (Nc8-d6) as well as a slow, but effective, plan of Kf1-e2-e3-d4. White wins a pawn after 3 ... g6 4 Nc8 a6 5 Nd6.

If Black stops Nd6 with 3 ... Ne8, White's king is too fast (4 Kf1 g6 5 Ke2 Kg7 6 Ke3 Kf6 7 Nc8 a5 8 Kd4 and Kc5 wins).

3 ... a6!

Now 4 Nc8 Kg8 5 Nd6 b5 6 Kf1 Nd5 and 6 ... Kf8 holds.

4 Kf1! g6
5 Ke2 Kg7
6 Ke3 Nd7!

Black defends ably (7 Kd4 Kf6 8 Nd5+ Ke6) whereas 6 ... Kf8? 7 Nc8 Ke8 8 Nd6+ would have lost quickly.

7 Nd5! f5
8 Kd4

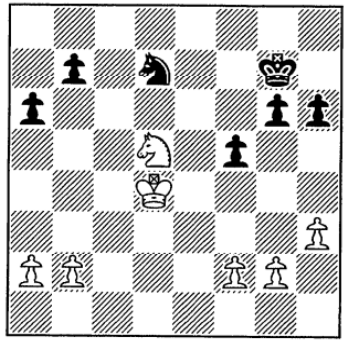

Diagram 151

Since Diagram 150, White's king has gained three moves on Black's. Although Black stopped the main threat of Kc5-b6, he cannot meet others, such as bringing a knight to c5.

8 ... Kf7
9 Nf4 Kf6
10 Nd3!

White threatens Nc5 and can meet 10 ... b6 with 11 Kd5 and Kc6.

Black played 10 ... g5 11 Nc5 Nf8 and White could have won with 12 Nxb7 Ne6+ 13 Ke3 Nf4 14 g3 Nxh3 15 Nc5.

Instead, he chose 12 a4? h5 13 g3 Ne6+ 14 Nxe6 Kxe6 15 a5?, and won a long queen ending. But, White could have saved himself many moves with 15 f4! gxf4 16 gxf4 b6 17 a5! bxa5 18 Kc5 and wins—again thanks to the king difference.

ELBOWING OUT

Every favorable difference that arises between one of your pieces and its opposite number can be exploited. Some of these differences are based on long-term factors, such as pawn structure. For example, there are numerous cases when a "good bishop" beats a "bad bishop" because the bad one is severely restricted by its own pawns.

Other differences are temporary, such as an active rook and a passive one in the last example. Give the passive rook a chance to find a better square—1 ... Rc2! in Diagram 150—and the "rook difference" disappears.

A king difference is essentially temporary. But, thanks to opposition, it creates a powerful technique called *elbowing out*.

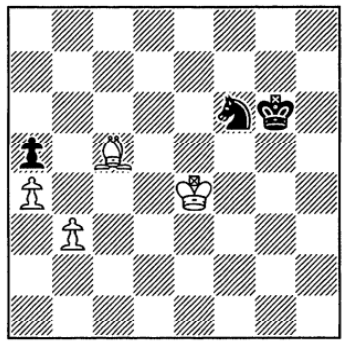

Diagram 152 Portisch–Kavalek, Montreal 1979
White to play

Once White gets out of check he can win a second pawn. But, he knows that he has to be careful because the bishop doesn't control the queening square of the a-pawn. That means there is the potential for drawing tricks.

1 Kd4?

By putting the king one diagonal square away from the knight, it can't be checked again for three moves. But, it's Black's king that must be kept at a distance. For example, 1 Ke5 Kf7 2 Kd6! Ke8 3 Kc6, and then not 3 ... Ne4 4 Bb6 Nd2 but 4 Bb4! axb4 5 a5 which wins because Black king's is elbowed out (5 ... Kd8 6 a6 Kc8 6 a7).

If Black tries 2 ... Ne4+, White wins with 3 Kd5 since now it is the knight that is kept at bay (3 ... Nd2 4 b4 axb4 5 a5!! Nb3 6 a6 Nxc5 7 a7 and queens).

A key point, which will keep coming up, is that 5 Bxb4?? in the last line will only draw because Black's king reaches a8 after 5 ... Nb3 6 Kc4 Ke6! 7 Kxb3 Kd7. This is another notorious fluke of endgame theory: White can't win because his bishop doesn't control the queening square.

1 ... Nd7
2 Bd6 Kf5

Black's king inches toward the vital queenside squares but he should still lose.

3 Bc7?

The margin of error is getting narrower. White could win without much ado after 3 Kd5!, stopping ... Ke6 (since 3 ... Nf6+ allows 4 Kc6 and Bc7xb6).

Again a tactical trick helps White; both 4 ... Ne4 and 4 ... Ke4 are beaten by 5 Bb4!.

The lesson is that White can always win the a-pawn with his bishop. It's keeping the Black king elbowed out that is priority number one.

3 ... Ke6

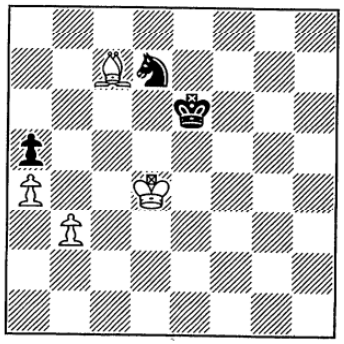

Diagram 153

Black is one step closer—but far from a draw.

4 Bxa5?

This is still good enough to win. Yet, once again, an "elbow move" (4 Kc4!) was much better.

4 ... Kd6
5 b4??

White makes his fourth and final error. He can still win with 5 Kc4, but it takes longer than it should have (5 ... Kc6 6 b4 Ne5+ 7 Kd4 Nf3+ 8 Ke4 Nd2+ 9 Kd3! Nb3 10 b5+ and now 10 ... Kb7 11 Bb4 Nc1+ 12 Kc4 and 13 a5 or 10 ... Kd5 11 Bb6).

5 ... Nb8!

Suddenly 6 ... Nc6+ is a threat, and 6 b5 Nc6+! 7 bxc6 Kxc6 draws after ... Kb7-a8.

6 Kc4 Nc6
7 Kb5

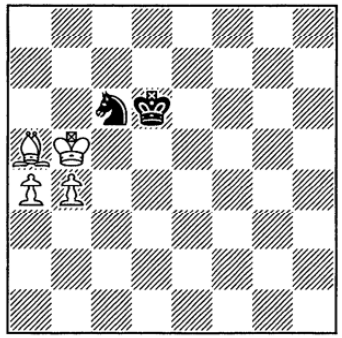

Diagram 154

7 ... Nxb4!
8 Kb6!? Nd3!
Draw

The knight and king are too agile (9 Bc3 Kd7 10 a5 Kc8 11 a6 Kb8 or 10 Kb7 Nc5+).

KING VERSUS PASSED PAWN

Like any weapon, *a passed pawn must be used to be effective.* Amateurs often err on the side of carelessness or caution. They either push pawns too early (when they lack support), or too late.

When is the right time? That usually depends on the enemy king.

In the next example, White threatens Rxf6xg6 and that appears to provide him with enough counterplay to distract Black from his goal of promoting a queenside pawn. For example, 1 ... Rb6 2 Rf4.

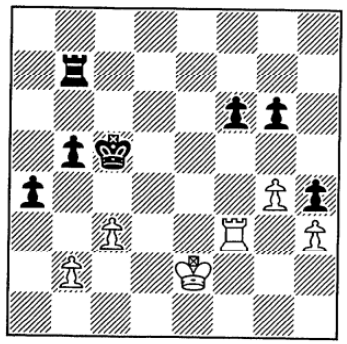

Diagram 155 Sanduleac–Nisipeanu, Bucharest 1998
Black to play

But the good technician looks to his assets first, his liabilities second.

1 ... b4!
2 Kd2

The a-pawn becomes too powerful after 2 Rxf6 bxc3 3 bxc3 Ra7 4 Kd3 a3 and 5 ... a2.

Black also wins after 2 cxb4+ Rxb4 3 Rxf6 Rxb2+.

2 ... b3!

The b-pawn becomes the candidate for coronation (3 ... a3 4 bxa3 b2). White must use his king to control the new queening square, b1.

3 Kc1 Re7

Black threatens ... Re1+-b1xb2.

4 Kd2

White can only hope to repeat the position (4 ... Rb7 5 Kc1) since 4 Rf1 Re3 would be lost.

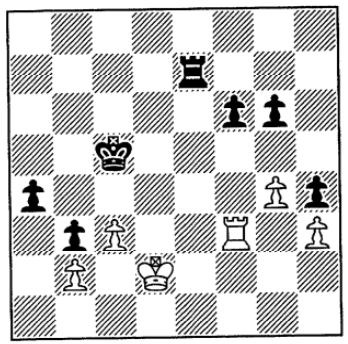

Diagram 156

4 ... a3!
5 bxa3 Re1!
Resigns

There is no defense to 6 ... b2 and queens.

Not all passed pawns are created equal. By far the most useful are those that are protected and "outside"—meaning the farthest away from the enemy king.

An outside passed pawn is a positional (and potential) asset, not a material one. But, it can become a harder currency than an extra pawn. An outside passer also lends itself to simple calculation—"fifth rank, sixth rank, seventh rank, queen!" We see this in the next example, where material is equal and White's tactical pressure is only temporary.

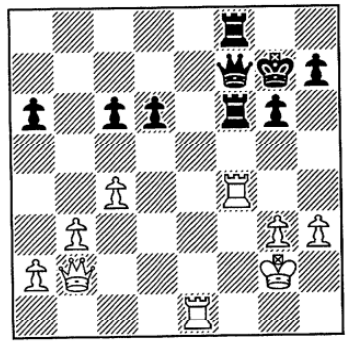

Diagram 157 Tal–Hulak, Novi Sad 1974
White to play

1 Rc5+ Ke4!

Now 2 Rg5 wins the g-pawn. But, whenever a rook becomes somewhat immobile like that, bad things can happen. The bad thing here is 2 ... Kf3!, threatening 3 ... Ra1 mate. White would be forced to play 3 h4, then 3 ... a4 4 Rxg6 a3 creates a threat of 5 ... Rb2, 6 ... a2, 7 ... Rb1+ and promotion. And on 5 Ra6, Black renews the mate threat with 5 ... Kxg3.

2 Rc6 g5
3 Rc5 Kf3!

Again the mate threat. White's rook is much better placed than in the last note, but that's not enough to draw, e.g. 4 Rc3+ Kg4 followed by ... a4-a3 and eventually ... Kh3.

4 h3

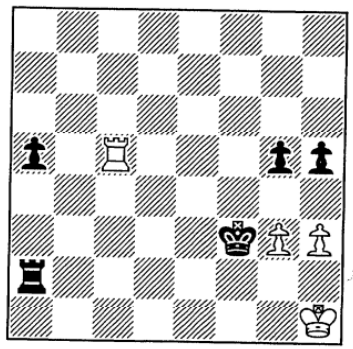

Diagram 160

Now 4 ... Kxg3 5 Rxg5+ edges closer to a draw.

4 ... g4!

An embarrassing finish would be 5 Rxh5 Kxg3 and ... Ra1 mates.

5 Rc3+ Kf2

The main threat is 6 ... h4! 7 gxh4 g3 and ... g2+.

6 hxg4 hxg4
7 Rb3 a4
8 Rc3 Rb2

And now 9 Rc4 a3 10 Ra4 a2 is curtains.

9 Ra3 Rb4

White resigned because her king is so out of play after 10 Kh2 Re4! that she has no way to stop Black's king from reaching b2.

When there is no passed pawn, and none is likely, the winning methods are severely limited. *Mate and zugzwang become important weapons because you don't have much else.*

This was the problem that White faced in the next example. He knew he had a huge material edge but he also knew how slim his winning chances were. There is no way of forcing a trade of rooks, and no second plan based on a queenside target. In fact, there is only one target for White to attack, f7.

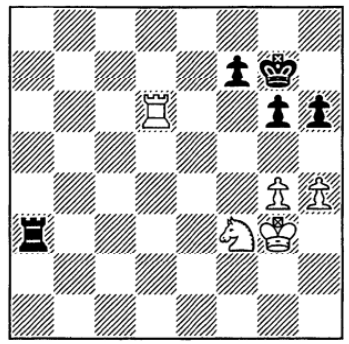

Diagram 161 Lerner–A. Petrosian, Ivano–Frankovsk 1982
White to play

If White's king had sufficient cover—if his pawns were at h3 and g2, for example, he could hide it at h2 and try to coordinate his other pieces to attack the f-pawn (Rd7 and Ne5). But, this is no longer possible; as soon as White's knight leaves the side of his king Black begins checking. If the king runs to the center, Black's rook attacks his pawns.

What's left? He can push a pawn to make inroads for his king or knight. For example, 1 g5 hxg5 2 hxg5 with the idea of bringing a

It's tempting to try to exploit the b2-f6 pin with 1 g4 and 2 g5. But, Black unpins with 1 ... Kg8.

1 Ref1 Qe6
2 b4!

White's chief asset is time, since it will take Black another move or two to get out of the pin. He converts that and the favorable queenside pawn formation into an outside passer.

2 ... g5

Now 3 Rf5 Kg6 allows Black to untangle his pieces.

3 Rxf6 Rxf6
4 a4!

Black is in no position to stop White's plan.

4 ... Kf7
5 Qxf6+ Qxf6
6 Rxf6+ Kxf6

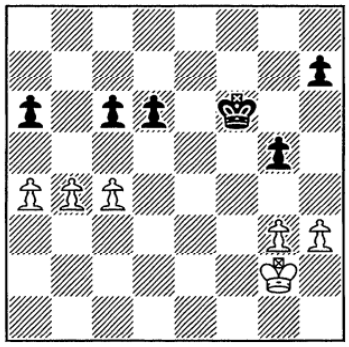

Diagram 158

A bit of calculation shows Black's king is "in the square" after 7 b5 cxb5 8 axb5 axb5 9 cxb5 Ke6. White might have looked farther to see whether he has enough finesses to win after 10 Kf3 Kd5 11 Ke3 Kc5 12 Ke4.

7 a5!

But the king won't be in the square of this pawn.

7 ... Ke6
8 b5 Kd7

White queens two moves ahead of Black after 8 ... axb5 9 a6.

9 b6!

With this b-pawn tying down Black's king, White wins by means of Kf3-e4-f5. Black resigned after 9 ... h6 10 Kf3.

MATE

The most primitive weapon in chess—a threat of checkmate—is relatively rare in endgames. But, it can turn out to be very handy when there are heavy pieces on the board. You won't forcemate, but you may be able to use the threat to create another winning asset, such as an advanced pawn:

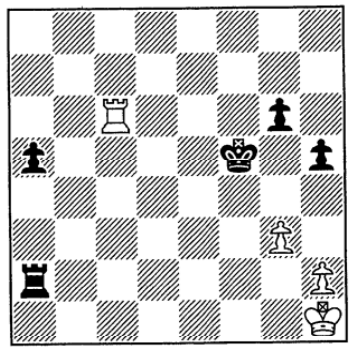

Diagram 159 Krush–Lalic, Hastings 2000
White to play

Black has all the ingredients of a likely win: an extra, passed pawn, a well-placed rook, and a huge king difference. If leftalone, he will push the a-pawn to the sixth rank and the g-pawn to g5, then look for a chance to either run his king to the queenside to support promotion, or pillage the kingside with ... Kg4-h3.

QUIZ

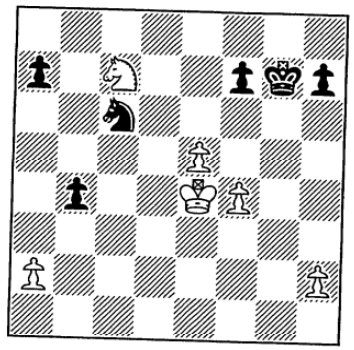

Diagram 163 P. Nikolić–Anand, Linares 1997
White to play

What is White's most efficient way of trying to win?

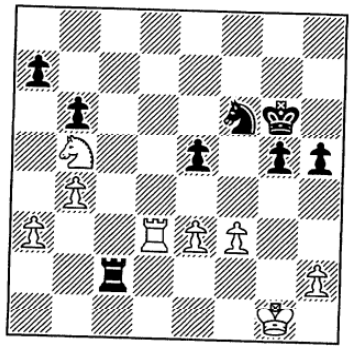

Diagram 164 Giardelli–Rustemov, Lorca 2001
Black to play

Which weapon does Black need to win? Put it in words, then find a way of using the idea.

CHAPTER 8

Attitude—The Weapon

Players not only bring different levels of skill to the board, they also carry around different attitudes. Player A will look at a typical position and think: "Now what do I do? I'm really out of my league here. Yeah, I've got an extra pawn. But, I've never won one of these endings before. What's my goal? I can't see two moves ahead, let alone 20. And meanwhile, my clock is running. So, what do I do now? I'm really out of my league here. Yeah, I've got an extra pawn. But, I've never won one of ..."

Player B looks at the same position and thinks: "Okay, a new game begins here. What's the score? I'm a pawn up. I don't know if that's enough to win. But, it's a start. This is probably going to take a long time. But, I can see one way to win. I can try to trade rooks and create a passed c-pawn. And now I see a second way. If I get my king to f4 and ... "

The difference is not a matter of playing strength. I've known budding masters who thought just like Player A and others a class or two weaker who thought just like Player B. To develop the right attitude isn't mysterious. But, it does require a bit of a change in the way you view matters—and how you use psychology to change the way your opponent does.

VISUALIZE

The good technician knows it takes time to achieve his goals and has also learned to visualize what the position will look like along the way.

During the great Moscow 1936 tournament, a group of young Soviet masters were analyzing a recently concluded game. When one of them asked José Capablanca what he thought about the position at hand, he replied, "White wins in one move."

One move? How was it possible, the Russians wondered? Could they all have missed something that simple?

knight to f6 (after Rf6-f4, Kh4 and Nh2-g4). But Black always has annoying checks or the drawing idea of ... f6, e.g. 2 ... Rb3 3 Rf6 Ra3 4 Kh4 Ra4+ or 4 Rf4 Ra6 and 5 ... f6.

1 h5!

White will open up a square, such as f5 or e6, for the knight, e.g. 1 ... gxh5! 2 gxh5 Rc3 3 Kg4 Rc4+ 4 Rd4 and Nh4-f5+.

Black's best is to draw a line in the sand along the fifth rank—2 ... Ra5 3 Kg4 Rb5 (not 3 ... Ra4+ 4 Kf5 Ra5+ 5 Ne5). If White's rook leaves the sixth rank, ... Kf6 is safe for Black.

If all else fails, White can sacrifice his last pawn and try to mate after 4 Nd4 Rg5+! 5 Kf4 Rxh5. That's a last resort since 6 Nf5+ Kh7 7 Ke5 Rg5 isn't much.

1 ... Ra5?

If Black is going to pass, this is as good or bad as any. Now White gets to use e6.

2 hxg6 fxg6
3 Rd7+ Kg8

Black will lose both kingside pawns—while White preserves his winning g-pawn—after 3 ... Kf6 4 Rh7 h5 5 g5+.

4 Kf4!

No stopping White's pieces now. His knight will go to e6. If his king can reach f6 via e5, Black will either be mated or lose both pawns.

4 ... Ra4+
5 Nd4 Ra5

A pass such as 5 ... Rc4 allows 6 Ke5 followed by Kf6 and Ne6. For example, 6 ... Ra4 7 Kf6 Ra6+ 8 Ne6 g5 9 Re7! Rb6 10 Kg6!, threatening mate and Kxh6xg5.

6 Ne6 Kh8

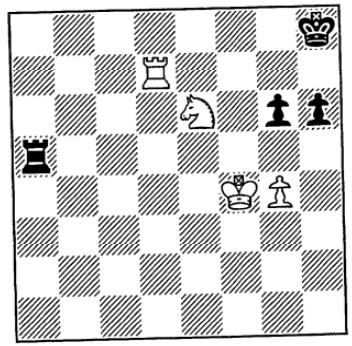

Diagram 162

7 Rc7!

The threat is Rc5 followed by Ke5-f6. Checks will only speed the king's entry.

7 ... Rd5
8 Rc5 Rxc5
9 Nxc5 Kg7
10 Ke5

Mate is no longer possible, but White will win because he can run Black out of moves and force his king backward.

10 ... Kf7
11 Nd3 Ke7
12 Nf4 Resigns

The squeeze runs 12 ... Kf7 13 Nd5! Kg7 14 Ke6! Kg8 15 Kf6 Kh7 16 Kf7 h5 17 g5 and mate in five moves.

These king-related weapons (plus trades, restriction, and zugzwang) are repeatedly used in the final stages of a game. But, the good technician is armed with one other thing that is more useful than any little-t technique, and we'll examine that in the next chapter.

In a way they had: Capablanca picked up the White king from g1 and placed it on c5. And the win was obvious. The former world champion had visualized a winning method that couldn't be prevented.

In positions of a quiet mood, this isn't as hard as it seems, as Capa's own games showed.

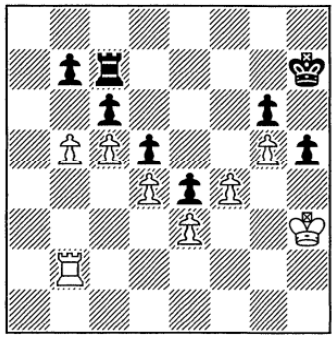

Diagram 165 Capablanca–Michell, Ramsgate 1929
Black to play

Black has traded queens on h3, mistakenly thinking his position is impregnable. Capablanca, however, could be fairly certain he was winning because he could foresee positions in which Black's pieces are frozen in place. One such position occurs if White trades pawns (bxc6/ ... bxc6) and plays Rb8. Then Black's rook can't move without dropping a pawn, and his king is restricted to a few squares.

1 ... Kg7

After 1 ... cxb5 2 Rxb5 White would continue 3 Rb6, threatening Rd6xd5. Black can defend with ... Rd7, but his rook cannot move without dropping a pawn and his king must defend g7. White would be free to use his rook and king to probe for a breakthrough.

2 Kh4 Kf7
3 bxc6

This is a major decision because it gives up on an alternative plan of b5-b6 and then Ra2-a7. The drawback to that idea is that White's

rook becomes as frozen as Black's. For instance, 3 b6 Rc8 4 Ra2 (else 4 ... Ra8!) Ke6 5 Ra7 Rb8 leaves Black with plenty of king passes.

And if White tries 4 f5 gxf5 5 Kxh5?? instead, he is committing suicide (5 ... Rh8 mate!). White needs to wait for his chance for f4-f5.

3 ... bxc6
4 Rb8

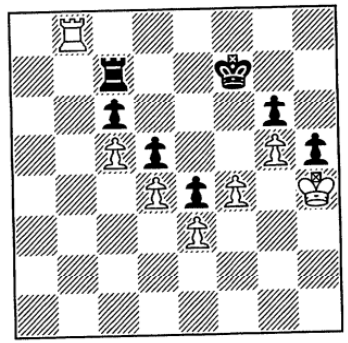

Diagram 166

When the mood is as quiet as this, you should be able to see at least a few moves ahead. This is what Capablanca visualized when the queens were traded.

A pass like 4 ... Kg7 invites 5 f5 gxf5 6 Kxh5 Kh7 7 g6+ Kg7 8 Kg5, after which White wins (8 ... Ra7 9 Rc8 Ra1 10 Rc7+!).

4 ... Re7
5 Rc8 Re6
6 Rc7+ Kg8

White has made considerable progress, but the next step will require calculating, not just visualizing, because he will have to take Black's moves into consideration. White has three options:

(a) He can leave the pawn structure as it is and try to squeeze Black into zugzwang with Rd7-d6.

(b) He can create a passed g-pawn with f4-f5/ ... gxf5 and Kxh5.

(c) He can play f4-f5/ ... gxf5 but then Kf4 and Kxf5.

7 Kg3

But calculation shows White that plan (b) would fail because 7 f5? gxf5 8 Kxh5 allows 8 ... f4! 9 gxf4 e3.

Yet plan (a) would have won. Why did Capablanca prefer (c) over (a)? Probably because (c) is easier to calculate with certainty than 7 Rd7 Kf8 8 Rd6 Ke7 9 f5 gxf5 10 g6.

7 ... Kf8
8 f5! gxf5
9 Kf4

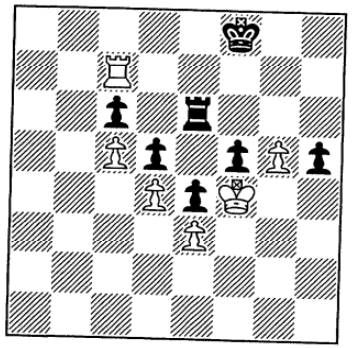

Diagram 167

Black cannot stop Kxf5, which forces the rook backward and wins the c-pawn. Then White's two passed pawns must win.

9 ... Re7
10 Rxc6

And Black resigned after 10 ... h4 11 Rh6 Rg7 12 Rxh4.

At this point Player A, the guy we met at the start of the chapter, speaks up: "How am I supposed to do things like that—looking ten moves ahead? I'm not a Capablanca."

No, you are not a Capa. But you should be able to visualize what an ideal situation would be, or at least what the next step in the process should be.

Some games look like a seamless process, with one idea flowing from the other. This is due more to the logic of chess than to the logic of men; after a game is over, the moves make us look better than we are (a lot better).

All it takes to create the conditions for winning is thinking through the next stage. You can even try putting it in words.

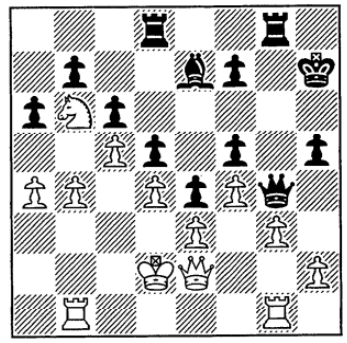

Diagram 168 Radjabov–Kasparov, Moscow 2002
White to play

White has a small but solid positional edge. How does he expand it?

1 b5?

Good idea, bad timing. Whenever you force or allow an exchange of queens you should have some general, even vague, idea of how you'll try to win.

If White had tried to put his idea into words, he would realize there was a flaw. If he had said to himself: "After the queens go off, I'll open the b-file. Then I can move the knight from b6 and invade with my rook" ...

1 ... Qxe2+
2 Kxe2 a5!

... he would have spotted the problem. White said afterward Black's simple defense "somehow escaped my field of vision." The point is that if White exchanges pawns on c6, he can't exploit the open file because the knight has no safe escape from b6.

There was no good fallback plan and White agreed to a draw soon after 3 Rg2 Kg6 4 h3 Kf6 5 Rbg1 Ke6 6 Kf1 Rh8 7 g4 hxg4 8 hxg4 fxg4 9 Rxg4 Rh3.

What this means is that in the diagram White should have played a quiet move that prepares b4-b5. For example, 1 Qf1! and then 1 ... h4 2 b5! offers good winning chances.

TAKE YOUR TIME

Many of the examples in this book were chosen because they compress several ideas and illustrate a variety of principles in a relatively short period, 10 to 15 moves or so. But most endings, even those with only a few pieces and pawns, take longer.

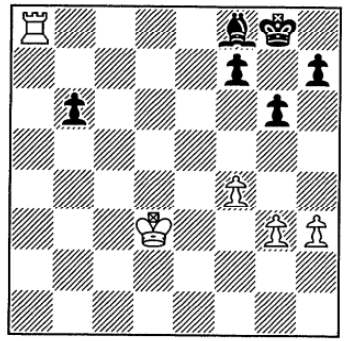

Diagram 169 Vitols–Kaupe, Riga 1988
Black to play

White's material edge is slim, and a computer might be excused for considering the position almost equal. In fact, White has the only winning chances, and they are good.

The first task is to visualize some winning plans. If White can penetrate with king—imagine Capablanca saying "In one move, king to e8!"—then Black cannot defend f7. Winning the b-pawn wouldn't shorten the game but winning the f-pawn would.

What about Black? His counterplay seems to lie with the b-pawn. But, it would be a mistake for him to push it because it may be needed on b6 to defend the bishop if it goes to c5. As we'll see later in this chapter, protecting the bishop with a pawn ("Botvinnik's Law") is a key defensive resource.

So the mood is passive and quiet; White is playing without an opponent.

1 ... Kg7?

"Every Russian schoolboy knows you must play ... h5 in such positions," is a typical comment from Soviet-trained masters. The reason this makes sense is that in many rook-and-pawn endings with three pawns facing three pawns on the kingside, the superior side will gain crucial space by pushing his g-pawn.

But, if White plays g3-g4 after 1 ... h5, Black gets to trade off a pair of pawns, and this greatly increases his drawing chances.

2 g4!

White can visualize a winning plan: He puts his rook on the seventh rank and his king around e5. Then he advances his pawn to h5, with a strong threat of h5-h6+.

Black can stop that by ... gxh5. But, then f4-f5-f6+ is deadly, as in the game.

Of course, this requires a lot of preparation. But, that's the point. This is the kind of position that can't be won quickly.

2 ... h6

This stops the h4-h5-h6+ idea, but it turns out to be a fatal weakening as we'll see after move 11.

3 Ke4 Bb4
4 Rb8 Bc5
5 Rc8

White is looking for the most flexible square for his rook, where it can shift along the sixth, seventh, and eighth ranks before he commits his pawns.

Black can only sit and wait. For example, 5 ... Bf8 6 Ke5 b5, and then 7 Rb8 b4 doesn't do anything but restrict Black's bishop. White makes progress with 8 h4 followed by h4-h5 and f4-f5, as in the game.

5 ... Bf2
6 Rc6 Bc5
7 Ke5 Be3
8 Rc7

Quite wrong would have been rushing matters with 8 f5 gxf5 9 gxf5 Bf2 10 f6+ Kg6 11 Rc8? Bg3+ and ... Kxf6.

8 ... Bf2

Black keeps his bishop flexible so he can stop the attack on f7 (via Kd6-e7-e8) by attacking the f-pawn (9 Kd6 Be3 10 Rc4 Kf6).

9 Rc8

It's good practice in endings with only a few pieces to keep your rook on the opposite color of an enemy bishop, at least until you have a compelling reason not to.

9 ... Be3
10 h4!

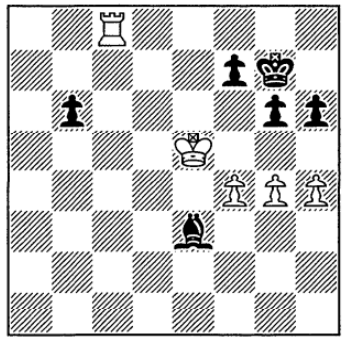

Diagram 170

White is finally ready to break into the kingside. Black cannot simplify (10 ... h5? 11 gxh5 gxh5 12 Kf5 Bf2 13 Kg5).

10 ... Bf2
11 h5!

White threatens 12 hxg6, which is strong because Black no longer has the option of ... hxg6!. That means he would have a choice between losing after 12 ... fxg6 13 Rc7+ followed by Kf6, or after 12 ... Kxg6 13 f5+ Kg5? 14 Rg8+ and Kf6xf7.

11 ... gxh5
12 gxh5 Bg1
13 Rc2

The open g-file is the final piece to the puzzle—14 Rg2+ and f5-f6.

13 ... Be3
14 f5!

The pawns cannot be stopped from reaching f6 since 14 ... f6+ 15 Ke6 leads to strangulation.

14 ... Bc5
15 f6+ Kf8

Or 15 ... Kh8 16 Rg2! Bf8 (else Rg7xf7) 17 Kd5! and Kc6-d7-e8.

16 Ra2 Kg8

Black drops a kingside pawn after 16 ... Ke8 17 Ra8+ Kd7 18 Rh8 Be3 19 Rf8.

17 Ra8+ Kh7

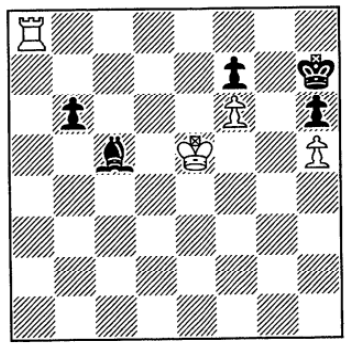

Diagram 171

18 Rb8!

Zugzwang. There is no legal king move, and after 18 ... Ba3 19 Rxb6 White can win by bringing his king to e8.

18 ... Be3
19 Rf8 b5
20 Rxf7+ Kg8
21 Rb7 Resigns

The value of patience begins well before the ending. It can be your protection against trying to win a game "brilliantly." You have to resist the temptation, when you've achieved a won game through tactical means, to begin looking for a knockout blow.

Many an "anthology game" has been tarnished—and even lost—this way.

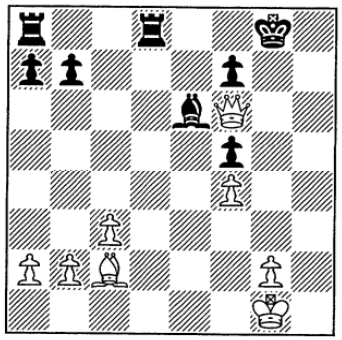

Diagram 172 Tseshkovsky–Bagirov, Telavi 1982
White to play

White won the enemy queen after a string of tactical shots. He can cash out with 1 Bxf5, creating a two-pawn edge, since 1 ... Bxa2 2 Qh6! would win more material.

But White saw resistance developing from 1 ... Bxf5 2 Qxf5 Rd6 and 3 ... Rad8. If he had looked further he would have visualized a simple winning plan: White advances his king to h5 and his pawns to f5 and g4. Black would likely be mated or allow a winning passed pawn within a dozen moves.

Instead, White wanted to finish off in the same sharp way that had gotten him this won position.

1 g4

White awarded this move a "!?"—the exclamation point because it is, in fact, the fastest winning line; the question mark because 1 Bxf5 was a much less dangerous route to victory.

1 ... Rd2!

Not 1 ... fxg4 2 f5 B-move 3 Qg5+ and 4 f6.

2 gxf5 Bd5

Black's pieces are suddenly active and White makes his second mistake; he became upset.

If he had the time and composure, he would have won with 3 Qg5+ Kf8 4 Qh4!, threatening 5 Qh8+ or 5 f6. For example, 4 ... Re8 5 f6! Rg2+ 6 Kf1 and a check on h8 or h6.

3 Bb3? Re8

Black threatens mate in one ...

4 Qg5+ Kf8

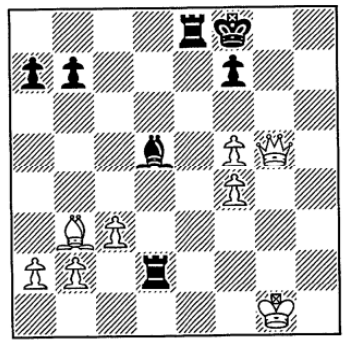

Diagram 173

... which was a wakeup call that warned White the situation was getting out of hand. He should now play for a draw with 5 Qh6+ Kg8 6 Qg5+ Kf8, which Black should agree to since 5 ... Ke7 6 Bxd5 Rxd5 7 Qg5+ Kd7 8 Qf6 favors White.

5 Qh4?? Bxb3

White has overplayed his hand. After 6 axb3 Ree2 the rooks are overwhelming (7 Qh8+ Ke7 8 Kf1 Rh2 9 Qe5+ Kd7 10 Qb5+ Kd8 11 Qa5+ b6 or 10 Ke1 Rxb2 and wins).

He actually played 6 f6 and was lost after 6 ... Re1+ 7 Qxe1 Rd1 8 Qxd1 Bxd1. As we saw in another piece-up ending, Diagram 94, White will soon run out of moves (9 Kf2 Ke8 10 Ke3 Kd7 11 f5 Kd6 etc.).

THINKING IN THE LONG TERM

Converting an advantage may take at least as long as it took to gain the advantage. So, if you spent 30 moves since 1 e4 or 1 d4 to obtain a won game, don't expect that it will take just 10 or 12 moves to deliver checkmate.

Once you think in the long term, you'll be more comfortable trying to win positions like this:

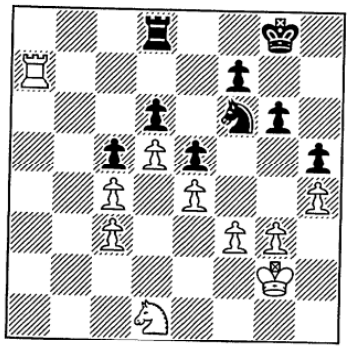

Diagram 174 Gulko–Seirawan, U.S. Championship 1999
White to play

Black has just allowed a trade of queens on d8 because he felt he had good drawing chances. The reasons for this are:

(a) White's extra pawn is doubled and there is no obvious way of creating a passed pawn.

(b) There are two open files so one must fall into Black's hands.

(c) Black has only one weakness, d6, and it is easily protected, and

(d) There are no exchanges Black should fear. Take away both rooks and knights, for example, and White's king can't force his way to c6, or into the kingside.

1 Kf2 Kf8

But, there is no counterplay. Black's rook can't do any damage on "his" file after 1 ... Rb8 2 Ke2 Rb1 (or 2 ... Rb3) 3 Kd2 and 4 Kc2.

2 Ke2 Rd7
3 Ra6!

If rooks are traded, Black posts a knight at b6, barring Ka4 and tying one of the enemy pieces to c4.

3 ... Ke7
4 Kd2 Rb7
5 Kc2

White is making progress. Black's control of the b-file is neutralized, and White can begin to play on both wings.

He can, for example, try for g3-g4 (5 ... Nd7 6 Ne3 Nb6 7 g4). On the queenside he can bring a knight to c6 via b3 and a5.

5 ... Ne8
6 Ne3 Nf6
7 Nf1!

Mini-plans take time. White avoids 7 g4 hxg4 8 fxg4? Nxe4, or 8 Nxg4 Nd7 and ... Rb8-h8.

7 ... Nd7
8 Nd2 Nb8
9 Ra1

The rook gets in the way on a8 (9 Ra8 Nd7 10 Nb3 Nb6).

9 ... Kd8

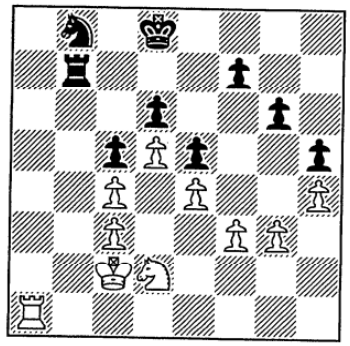

Diagram 175

Black can defend by offering rook trades that would draw, e.g. 10 Nb3 Kc7 11 Ra8 Rb6 12 Na5 Ra6!. Also, 12 Ra7+ Rb7 13 Rxb7+ Kxb7 14 Na5+ Kc7.

10 g4!

Now that Black's king and knight have the queenside covered, White begins a second plan. The threat is gxh5 followed by Rg1-g5xh5 or Nf1-g3.

10 ... hxg4
11 fxg4 Ke7
12 Nb3!

The knight switches from the Nf1-g3 idea back to Na5-c6. Black still has no real counterplay since 12 ... f5 13 exf5 gxf5 gives White a choice between 14 gxf5 Kf6 15 Nd2, and Ne4(+) or 14 g5 Kf7 15 Ra8 and Na5.

12 ... Kf6
13 Ra8 Nd7
14 Na5 Rb8

The encirclement is clear after 14 ... Rc7 15 Rg8!, threatening 16 g5+ and 17 Nc6+.

15 g5+ Kg7

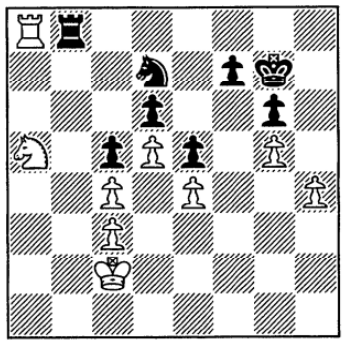

Diagram 176

Black's king is no longer in the game. White may be tempted to try 16 Ra7 Nb6, but there is a simpler method.

16 Rxb8! Nxb8
17 Nb7

White wins a pawn. Black resigned after 17 ... f5 18 exf5 gxf5 19 h5 f4 20 Nxd6 Nd7 21 Kd3 because he will be out of moves following Ke4-f5.

BOTVINNIK'S LAW

One aspect of technique that is overlooked or underappreciated is the attacking of unprotected enemy pieces. This could be called Botvinnik's Law, because of a story Garry Kasparov told of a game he adjourned when he was 14 years old.

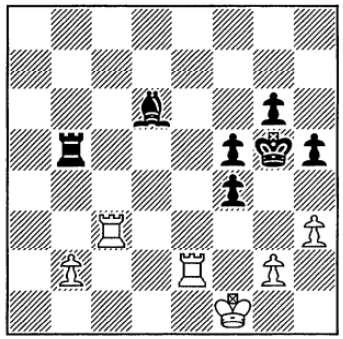

Diagram 177 Zaid–Kasparov, Leningrad 1977
White to play

Kasparov called his mentor, Mikhail Botvinnik, seeking advance, he recalled in "Kasparov Against the World." He began describing the position but Botvinnik cut him off.

"Garry, just tell me one thing: Is your bishop protected by a pawn?"

"No," said Kasparov.

"Then you are lost," the former world champion told him.

Kasparov didn't want to believe this since he had stopped White's passed b-pawn and left himself with one only weak point, at g6.

But his bishop was vulnerable to attack. White carefully prevented him from playing ... Be3! and steadily made progress:

1 Rc6 Be5

To stop 2 Ree6 and Rxg6+.

2 b4!

White exploits the bishop (2 ... Rxb4?? 3 Rxe5) and threatens 3 Rc5!. If Black trades rooks, he will eventually have to give up his bishop to stop the passer.

2 ... Bd4

This was much better than 2 ... Bg7 because of 3 Ree6!, which would threaten to win the bishop. Now Black threatens 3 ... Rxb4, as well as ... Be3.

3 Rc4!

White had to decide whether to simplify with 3 Ree6 Rxb4 4 Rxg6+ Kh4, or continue to harass the bishop. The simplifying line would have given Black the prospect of anchoring the bishop with ... Be3 and creating a passed h-pawn with ... f3.

3 ... Ba7

The bishop still has no haven because 3 ... Be3 fails to 4 h4+! Kxh4 5 Rxe3, or 4 ... Kh6 5 g3.

4 Re6!

Not 4 h4+? Kxh4 5 Rxf4+ Kg3, and Black is the one making progress.

4 ... Rd5

As good as anything since 4 ... Be3 still loses to 5 h4+!.

5 h4+ Kxh4
6 Rxg6

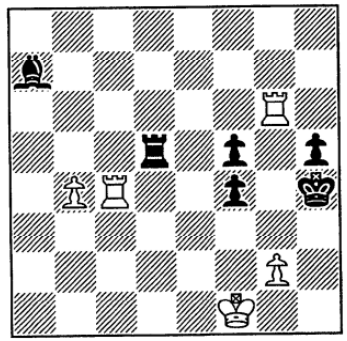

Diagram 178

It may not seem significant yet, but White has made giant strides between the diagrams. Thanks to the threat of Rxf4+, White advanced further after 6 ... Be3 7 g3+! Kh3 8 gxf4. Then 8 ... Rd3 9

Ke2 Rb3 10 Rg5 was the beginning of the end. White eventually won by winning the f-pawn and pushing his two passers.

Don't get the impression from this that you should mindlessly attack any unprotected piece. Then you've become the harasser. But, the judicious hitting of enemy piecces is simply a form of exploiting all the available enemy weakneesses.

When there are heavy pieces on the boeard, the opposing king must be kept in mind as a target. It oftern provides the necessary second plan.

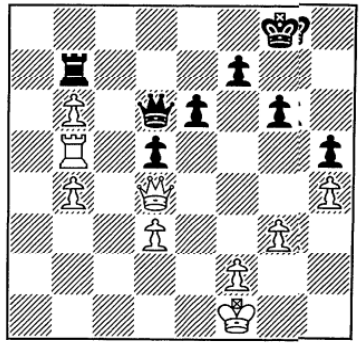

Diagram 179 Safin–A. Ivanov, Bled 2002
White to play

White's extra pawn is passed but blockaded. The task of converting his edge seems formidable. However the game is over in five moves.

1 Qc5! Qb8

Clearly 1 ... Qxc5 2 bxc5 and 3 c6 was lost. And 1 ... Qd8 2 Qc6 Qb8 3 Qc3 transposes into the game.

2 Qc3!

White threatens to win the queen (or mate) with 3 Rc5 and 4 Rc8+.

2 ... Rd7
3 b7!

Again the kingside dooms Black's queenside (3 ... Rxb7 4 Rc5 and 5 Rc8+).

3 ... Rd8
4 Qc6 Kg7
5 Ra5

White won with 6 Ra8.

Now a more elaborate example of this theme. The material situation is similar—queens and rooks with a slight material edge for White. But, the task is much more difficult.

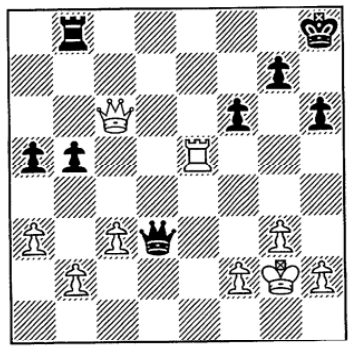

Diagram 180 Petrosian–Portisch, Varese 1976
White to move

White's extra pawn is on the good side of the board, and his pieces are a bit more active. Unless he can swap down to a pawn ending, he should avoid rook trades (1 Re8+ Rxe8 2 Qxe8+ Kh7). After all, he is the one with the more active rook.

But, rook endings are very good for him. What does it take to win a typical rook ending? There is no rule but a good guideline is: *You need an extra pawn and a more active piece (either king or rook).*

1 Rc5

Black offers stiffer resistance after 1 Re3 Qc4!.

1 ... b4?

Exactly what White wants. Black probably feared slow torture after 1 ... Kh7 2 Qf3 Qd7 3 Qe4+ Kh8 4 Qd5.

2 cxb4

A practical decision, compared with 2 Rxa5 bxa3 3 bxa3. Then the queen endgame (3 ... Rb3 4 c4 Rxa3 5 Rxa3 Qxa3 6 c5) should be won because of the passed pawn.

But, this is double-edged because of 3 ... Rb1 and ... Qf1+. White decided instead to grab a tangible but less risky edge—an outside passer.

2 ... axb4
3 a4

White has several ways of making progress now: consolidating on the queenside with b2-b3, advancing the a-pawn, or going after the biggest target—the king.

3 ... Qb3
4 Rc2 Qa2
5 Re2

On 5 ... Qb3 6 a5 and 7 a6 White is close to a won queen ending (Re8+). The reason this one is won (and 1 Re8+ wasn't) is that White's queen can get to the f3-a8 diagonal. This means he controls both the queening square—his method of winning—and the "perpetual check diagonal"—Black's only method of forcing a draw.

5 ... Kh7

White has a simple way of consolidating now—6 Qc2+ Kh8 7 b3!.

6 h4? b3!

White doesn't get a second chance for the Qc2+ idea. Black could have stopped the check with 6 ... f5, but then 7 Qf3! Qxa4 8 Qxf5+ Kh8 9 Re7 Qc6+ 10 Qe4 leads to a lost rook endgame (10 ... Qxe4+ or 10 ... Qc5 11 Qe5 Qxe5). That fits into our guideline of a likely win: White would have an extra pawn plus the superior rook.

After 6 ... b3, White's passed pawn is artificially isolated (and vulnerable to ... Ra8). But, Black's queen is virtually off the board. That creates opportunities for White. As long as he keeps an eye on a4 and b2, he can juggle various plans—beginning with attacking g7.

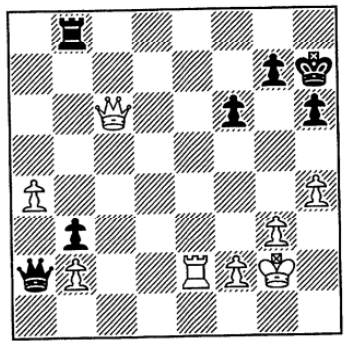

Diagram 181

7 Qd7! Kh8
8 Re7 Rg8

The do-or-die try was 8 ... Qxb2 9 Rxg7 Qc2, stopping mate at h7 and threatening ... b2 as well as ... Qe4+ harassment.

This would force White to decide between 10 Qe7 and the complex 10 Qf7 Qe4+ (which is hard to calculate, but wins after 11 f3! Qe2+ 12 Kh3 Qf1+ 13 Kg4 Rb4+ 14 Kh5! Qxf3+ 15 g4).

9 Qd4!

A fine centralized square that guards against ... Qb1-e4+. Thanks to this move the rest of the game is essentially a battle between White's two pieces and Black's rook. Still, White can only win if he exploits Black's king.

9 ... Ra8

Black must watch out for 10 Ra7 and 11 a5, 12 a6, etc.

10 Rb7!

White's pieces are perfectly placed now and Black can lose quickly if he drops the b-pawn (10 ... Qb1 11 Rxb3), or overlooks something on the kingside (10 ... Kg8?? 11 Qd7 and mates).

The key point is that White has found a way to make the vulnerable kingside part of the tactical mix, e.g. 10 ... Rxa4 11 Rb8+ Kh7 12 Qd3+ g6 13 Qd7 mate.

On 10 ... Qxa4 11 Rb8+ Kh7, White has good chances in the 12 Qxa4 ending (but does better with 12 Qd3+ g6 13 Rb7+, or 13 Rb6 with threats of both 14 h5 and 14 Rxf6).

10 ... Re8
11 Rb5 Rc8
12 Rb4!

The a-pawn is protected now, and that frees White's queen. His main objective is Qxb3, but en route to that it can threaten the rook as well as the king. For example, 12 ... Rc2 13 Qd8+ and 14 Qd3+ wins the pawn, but 13 Rb8+! and 14 Qe4+ would mate.

12 ... Rg8
13 Qc3 Ra8

Black seems to have met all the threats and there is no zugzwang as long as he has king moves.

14 Qf3! Resigns

But, White realized that Black's rook, the heart of the defense, couldn't move from a8. White wins after 14 ... Rc8 15 Qxb3 or 14 ... Ra5 15 Rb8+ Kh7 16 Qe4+ f5 17 Qe6 and Qg8+.

There's one more reason why patience is a virtue. The seemingly monotonous maneuvers, repetition of the position, and minute improvements, often take a toll on your opponent: *Boredom is a psychological weapon.*

If you can convince your opponent his chances of saving the game are being slowly reduced, he will speed his own defeat.

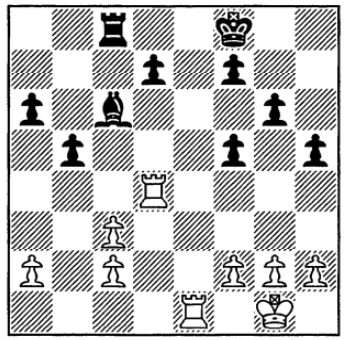

Diagram 182 Adams–Lutz, León 2001
White to play

White's material edge is slight, but enough to work with. Ultimately he can win if he penetrates with his king and picks up a pawn or two. The king's advance would be greatly enhanced by a trade of rooks, so that becomes an interim goal.

1 h4

White wants his pawns on the opposite color of the bishop where they will restrain ... g5 and ... f4.

1 ... d5
2 Re3

White protects his only vulnerable point, c3.

2 ... Rc7

This wait-and-see policy leaves Black's pieces passive and that imposes a huge psychological burden on him. Not many players can endure the emotional strain of realizing how powerless they are—and still be able to defend well for 20 moves.

Better was 2 ... Bd7!, with the idea of 3 ... Be6 and ... Ke7-f6. This is based on the fact that Black still has a potential target at a2.

It's risky because White wins a pawn with 3 Rxd5 Be6 4 Rd6 Bxa2 5 Rxa6, but Black's defensive chances are considerable following 5 ... Bc4. Then his bishop is anchored by the b-pawn, and it protects his only serious targets, at b5 and f7.

3 a3! Kg7
4 Kf1 Kf6
5 g3! Rc8
6 Ke2 a5
7 Kd2

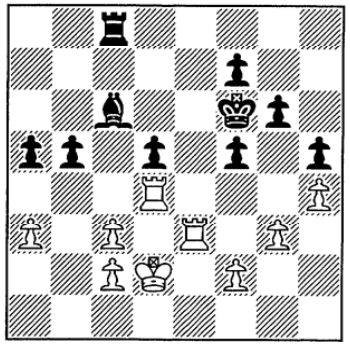

Diagram 183

Black can see the enemy progress; on d2, the White king frees his rook for duty. Black's king is cut off from the queenside, and his bishop is fixed in place because 7 ... Bb7 allows 8 a4!, which exposes a new target at a5. That leaves the defender with a choice between sitting tight and trying to take preventative measures.

7 ... a4?

The losing move. Black wanted to make sure all his pawns were protected, but he creates a fatal weakness at b4.

Passing with ... Rc7-c8 turns the psychology around and forces White to show what he has. For example, 7 ... Rc7 8 Re2 Rc8 9 Ke3 Rc7 10 Kf4 Rc8 11 Re1 Rc7 leaves White at the end of a road of slight improvements. What then?

The sacrifice 12 c4 bxc4 13 Rb1 achieves nothing after 13 ... Ke6! and ... f6. Worse is 12 Rb1 Ke6 13 a4 bxa4 14 Rb6 Kd6 15 Ra6? Kc5! 16 Rxa5+ Kb6 and Black plays to win.

8 c4!

But, now this break works because White's king gets to b4 in key lines (8 ... dxc4 9 Rd6+ Kg7 10 Kc3).

8 ... bxc4
9 Kc3 Rb8

Otherwise, White's king marches to b6.

10 Re1

White will win control of the b-file because Rdd1-b1 cannot be stopped.

10 ... Rb5
11 f4!

But, he takes time to make sure there isn't a smidgin of counterplay (11 Rdd1 f4! 12 gxf4 Bd7 and ... Kf5).

11 ... Bd7
12 Rdd1 Be6
13 Rb1

Black will drop material soon after 13 ... Rxb1 14 Rxb1 followed by Kd4 and Rb7-a7.

13 ... Ra5

With control of the only open file, White can pick and choose plans. For example, he can try to force a trade of rooks. Or, he can go for mate with Kd4-e5 and double his rooks on the eighth rank.

14 Rb6 Ra8
15 Rd1 Kg7
16 Rdb1 Kf6
17 Rb8! Ra7
18 R1b7 Ra6
19 Rd8

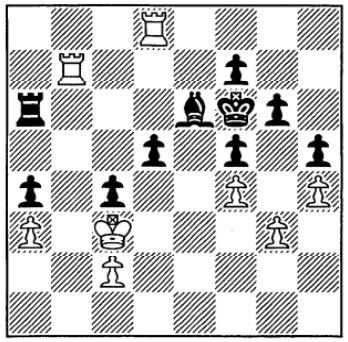

Diagram 184

The swap/squeeze strategy is going so well that White threatens to trap the rook with Kb4-b5.

19 ... Rc6
20 Kd4 Resigns

Black can't hold the a-pawn for long. After 20 ... Ra6 21 Kc5! the rook falls (21 ... d4 22 Kb5 d3 23 c3).

The good technician has many weapons, and good psychology is one of them, as this last example shows. But, psychology can also work against him. He must never, never tell himself "The position will win itself." It never does.

QUIZ

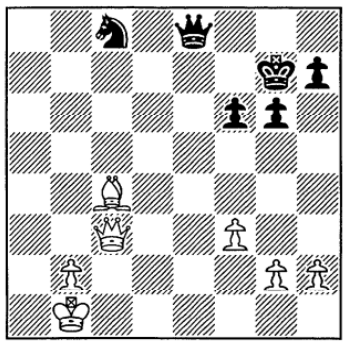

Diagram 185 Alekhine–Saemisch, Baden-Baden 1925
White to play

What is White's best plan? Visualize what happens if he trades queens.

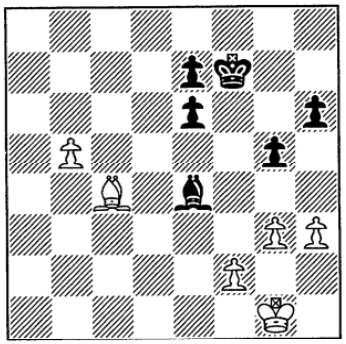

Diagram 186 Pigusov–Atalik, Reykjavik 1994
White to play

Should White give up a pawn with 1 f3 to race his king to d4?

CHAPTER 9

King Runs and Pawn Management

There is an intricate kind of endgame that is so difficult—and so common—that it deserves its own book. But, we'll try to cover the key points in one chapter.

It arises when there are pawns on both wings and your king, usually castled kingside, is the key to victory. The best winning chances are based on the king running to the queenside to support a passed pawn or win an enemy pawn. But, the king's absence from the kingside may allow the defender to pillage pawns there. Then the outcome of the game usually hinges on how well you have secured those pawns.

Our first example illustrates the basic king run.

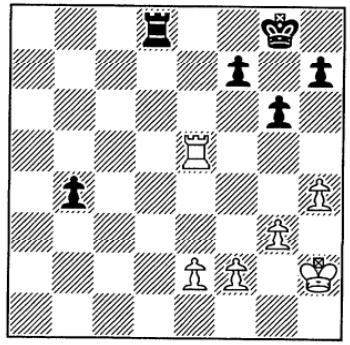

Diagram 187 Andersson–Petursson, Reggio Emilia 1990
Black to play

White has just traded queens on e5 and hopes to draw after, say, 1 ... Rd2 2 Kg2 b3 3 Rb5 b2 4 Kf3 and Ke3.

1 ... Rb8!

Black threatens to push the pawn home.

2 Rd5

But White's rook can get back in time (2 ... b3 3 Rd1 b2 4 Rb1). This means Black will need king support to make the b-pawn count.

2 ... f5!
3 Rd2?

White knew that the defender usually should blockade a passed pawn as far from the queening square as he can. Yet here that policy loses because it grants Black a winning king difference.

After 3 Kg2 Kf7 4 Kf3 Ke6 5 Rd1! the outcome would be in doubt (5 ... b3 6 Ke3 b2 7 Rb1 Kd5 8 Kd3).

3 ... Kf7
4 Kg2 Ke6
5 Kf3 b3

The threat of 6 ... b2 allows the king to cross the d-file.

6 Rb2 Kd5
7 Ke3 Kc4

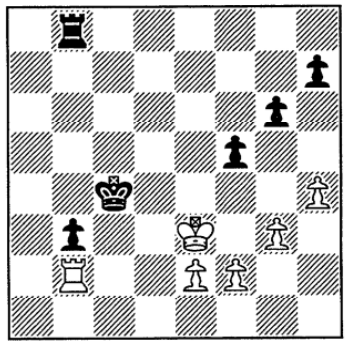

Diagram 188

White can stop 8 ... Kc3, but:

8 Kd2 Rd8+!
Resigns

After 9 Kc1 Kc3 10 Rb1 Ra8! White cannot stop an execution plan such as 11 ... Ra2 and 12 ... b2+.

The technician's task becomes much more difficult when his own pawns come under counterattack. After all, it doesn't help your cause if your king pushes a passed pawn on the queenside while all your kingside pawns are being incinerated.

The key to success is whether you can create a solid defensive formation for those pawns. This may involve what we'll call a *base pawn*.

In the next example, Black has an extra pawn, but it's on the kingside, where a passer can be halted by White's king. Black begins his work with two general ideas about the position: (a) He can defend his most vulnerable pawns with his rook, while (b) using his king to carry out another task, such as a queenside raid.

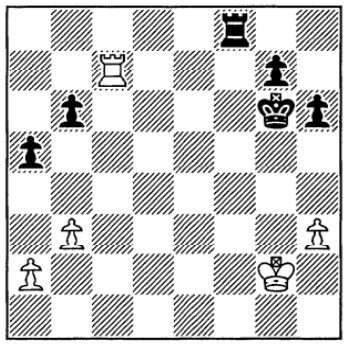

Diagram 189 Grószpéter–Karlsson, Copenhagen 1989
Black to play

1 ... Rf6!

The rook belongs on the third rank where it can defend a base pawn at b6 as well as one on the kingside..

2 Rb7 Re6
3 Kf3 Kf6
4 Rb8 g5?

But, this destroys the natural king shelter that could have been his with 4 ... g6! followed by ... Kg5 and ... h5. Once Black has that setup, he can try to win the h-pawn with ... Rc6-c3+ and ... Kh4xh3.

White should be able to win the b-pawn then, but Black's two kingside passers, supported by king and rook, would decide the game.

5 Kg4 Re4+
6 Kg3 Rb4!

Black has to find a new plan. On b4 the rook protects the b-pawn, just as it did along the sixth rank, but will now cut off White's king along the fourth rank.

7 Rh8! Kg6
8 Rg8+ Kf6
9 Rh8!

But, the absence of the Black rook from the kingside allows White plenty of harassment. Black's rook becomes the passive one.

9 ... Kg7
10 Rc8 Rf4
11 Rb8 Rb4
12 Rc8

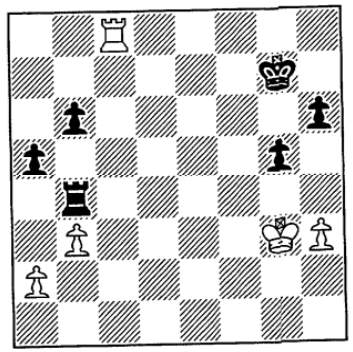

Diagram 190

12 ... h5

For lack of a better idea, Black gives away the last vestige of pawn shelter in order to create a passer.

13 Rc6! g4

Or 13 ... h4+ 14 Kg2 (not allowing the rook's transfer back to the sixth rank by 14 Kf3 Rf4+! and 15 ... Rf6!) Kf7 15 Rh6.

14 Kh4 gxh3+
15 Kxh3 Kf7
16 Rh6 h4

Black can afford this defense of the pawn because 17 Rxh4 Rxh4+ 18 Kxh4 Ke6 is a won pawn ending.

17 Kg2 Ke7!

Black's rook defends the h-pawn, and that frees his king for queenside duty. But, the game should still be drawn.

18 Kf3 Kd7
19 Ke3 Kc7
20 Kd3 Rg4

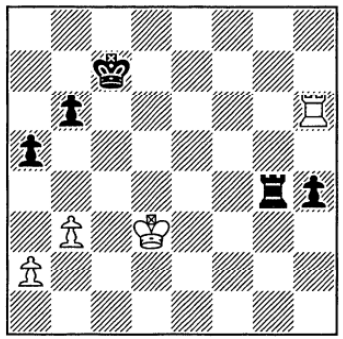

Diagram 191

Black has an elaborate plan in mind: ... Kb7-a6-b5-c5 followed by ... b5 and ... Kb4-a3. Seeing this idea, White panics.

21 a4??

White's queenside had been safe since Diagram 189 because he had a base pawn of his own at a2. But, this move shifts the base to the more vulnerable b3.

White could have safely passed with his king (Kc3-d3) as long as

it was at c3 in time to stop ... Kb4. Note that 21 Kc3 b5 achieves nothing because of 22 Rh5!, and Black has no king shelter (22 ... Kc6 23 Rh6+ Kd5 24 Rh5+).

21 ... Rb4!
22 Kc3 Kd7!

White is doomed because his b-pawn is weak. That means Black's king can reach g7, where it will drive the rook off h6 and free the h-pawn.

23 Kc2 Ke7
24 Kc3 Kf7
25 Rd6 Kg7

Now a pass such as 26 Re6 allows 26 ... h3 and wins.

26 Rd7+ Kg6
27 Rd3 Kg5
28 Kd2 Kg4
29 Ke2 h3

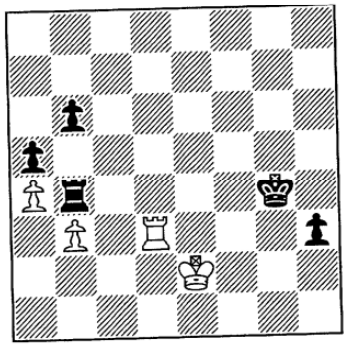

Diagram 192

White resigned after 30 Kf2 Rf4+ 31 Kg1 Rf3.

The problem of shielding pawns from attack occurs regularly in rook endings because rooks are wonderful pawn-raiders. When you don't have a rook of your own, you have to be more creative, as in the following case from a Candidates match.

White has a very slight material edge, but can win if he safe-

guards his pawns on both wings and then uses his king and knight to harvest pawns.

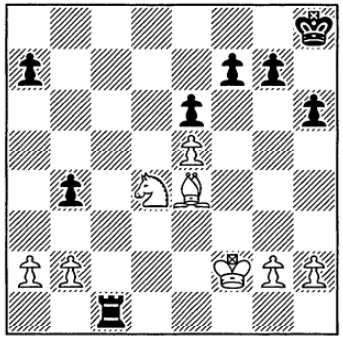

Diagram 193 Korchnoi–Polugayevsky, Match 1977
White to play

It's easy to see that White will play h2-h3 to secure the kingside. But, what about the other wing? There is no potential base pawn there.

1 Nb3! Rh1

After 1 ... Rc4 2 Ke3, Black's rook can't attack any pawns and it will be kicked back by 3 Bd3. That isn't the end of the story, of course, but it means White will enjoy a free hand to launch a raid such as Kd2 followed by Na5-c4 and Kc2-b3.

2 h3 Kg8
3 a3!

A surprising decision because it eliminates pawns, but much better than 3 Ke2 Kf8 4 Kd3 Rb1 5 Kc2 Re1 6 Nd2 Re3 or 4 Kd2 f5 5 Bc6 g5 and ... h5. White sees he will defend his remaining queenside pawn at a4 or a5.

3 ... bxa3
4 bxa3 Kf8

Even on a board clear of major obstructions, the rook is remarkably ineffective (4 ... Rd1 5 Ke2)

5 a4! Ke8
6 a5 Kd7
7 Ke2 Kc7

The a-pawn and bishop keep Black's king at bay. The only question now is whether White can do anything with his king.

8 Kd2 Rf1
9 Kc3 Re1
10 Nc5

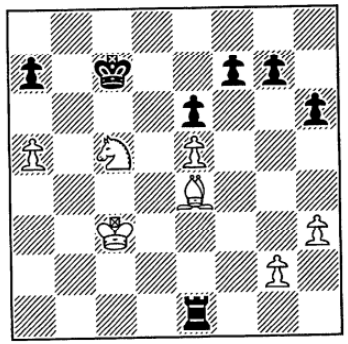

Diagram 194

All of the key squares are still covered, and White's progress is assured.

10 ... Ra1
11 Kb4 Re1
12 Kb5 Kb8

White could have won directly with 13 Kc6 Kc8 14 Nb7! followed by Nd6+ and Kd7 or Kb7, depending on where Black's king goes.

Instead, he played 13 Ka6 h5 14 Bf3 h4 15 Ne4! Re3 16 Nd6!, and eventually won (16 ... Rxe5 17 Nxf7 Re1 18 Nd8 and Nc6+, or as the game went, 16 ... f6 17 exf6 gxf6 18 Nb5 e5 19 Nxa7).

PREPARING THE KING'S RUN

A more common situation arises in a rook ending in which there are equal numbers of pawns on the kingside and one player has an

extra queenside pawn. The rook cannot force a win by itself and needs king help.

Which way the king should run will depend on what the defender does:

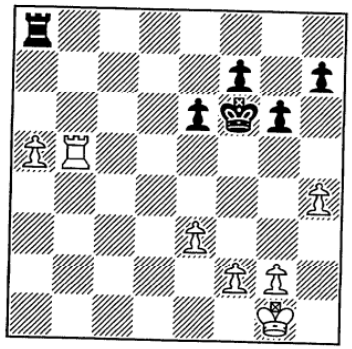

Diagram 195 Flear–Erdogdu, Plovdiv 2003
Black to play

1 ... Rc8?

Black mistakenly thinks he can get behind the pawn with 2 ... Rc2 and 3 ... Ra2, after which White's winning chances would be slim.

2 Rb1!

Black's lapse freed White's rook to get behind the pawn.

2 ... Ra8
3 Ra1 Ke5
4 Kh2 Kd5?

Black's second error is thinking he should use his king-difference.

5 Kg3 Kc5
6 Kg4

Now he sees that 6 ... Kb5 7 Kg5 Rxa5 8 Rxa5+ Kxa5 9 Kf6 is a hopeless pawn ending.

6 ... f6
7 h5 Ra7
8 h6 Kb5

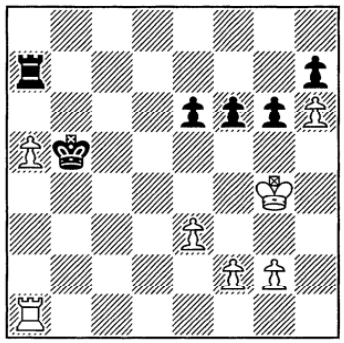

Diagram 196

9 f4!

This prepares an e3-e4-e5 break that will open g5 to the king.

9 ... Ka6
10 Rc1!

With threats of Rc6+xe6 or Rc8-g8-g7.

10 ... Kxa5
11 Ra1+ Kb6
12 Rxa7 Kxa7
13 e4 Kb6
14 e5!

One finish would be 14 ... fxe5 15 fxe5 Kc5 16 Kg5 Kd4 17 Kf6 Kd5 18 Kg7 wins. Black resigned after 14 ... Kc6 15 exf6 Kd7 16 Kf3 Ke8 17 Ke4.

Black lost the game because he committed his king too early. The defender can usually resist better by waiting. If his opponent keeps his king on the kingside, the defender should just sit there with him. Only when the opponent sends his king to the queenside should the defender put his own king into action—either trying to

raid the kingside, or shadowing the enemy king. In other words, *both kings must watch their opposite number very closely.*

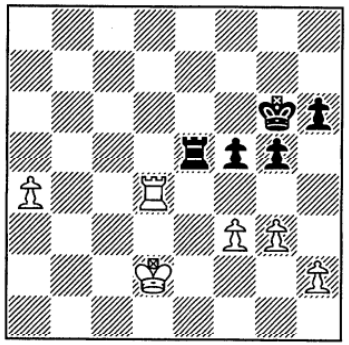

Diagram 197 Bareev–Topalov, Dortmund 2002
White to play

1 Rd3

White signals his intent to push the a-pawn as far as it will go (2 Ra3 and 3 a5, etc.).

1 ... f4

Black knows it's time to act. He threatens to create a passer of his own with 2 ... fxg3 3 hxg3 h5 and 4 ... h4.

2 g4!

Black might survive after after 2 gxf4 gxf4 and ... Kg5-h4-h3. But now 2 ... h5 3 h3 hxg4 4 hxg4 leaves him with no king entry. And on 3 ... h4, White has time to carry out his plan—4 Ra3 Ra5 5 Kc3 Kf6 6 Kb4 Ra8 7 a5 Ke6 8 a6 Kd6 9 Kb5 Kc7 10 Rc3+.

2 ... Kf7!

This saves a tempo compared with the last line.

3 Ra3 Ra5
4 Kc3 Ke6
5 Kb4 Ra8

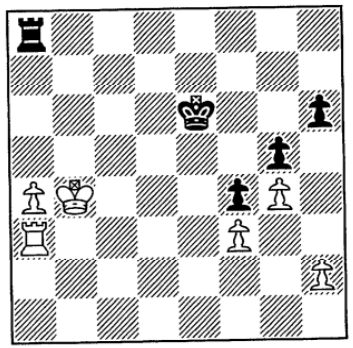

Diagram 198

Black's king is close enough to help out against the a-pawn. White tried to block the enemy king with 6 Kc5 Kd7 7 a5 Kc7 8 a6, and won eventually after 8 ... Re8 9 Ra2 Kb8 10 Rb2+ Ka8 11 Rb6.

Simpler was 6 a5! Kd6 7 a6 Kc7, then 8 a7? Kb6! allows Black's shadow strategy to work, but 8 Ka5! Re8 9 Rc3+ Kb8 10 Kb6 and 11 Rc6 would win.

So far we've been considering ideal conditions for White's rook. But what if the defender's rook gets behind the queenside pawn?

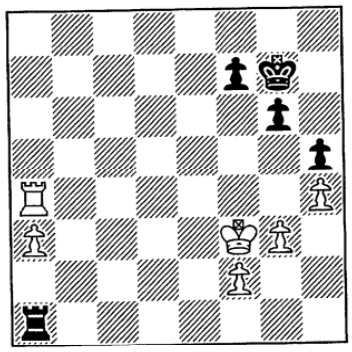

Diagram 199 Lerner–Dorfman, Tashkent 1980
White to move

You might think White is better off since Black's rook can't blockade the pawn. But actually White is worse off because his rook is in the way of his pawn. If he plays Ra8 and pushes the pawn to a7, the rook will be stalemated and his king has nowhere to hide from checks if it should reach b7.

So, White must adopt a classic formula, which applies whether the queenside pawn is on a, b, or c-file. White takes his time to:

(a) Secure the safety of his kingside pawns as well as he can. This will almost always mean getting them off the second rank.

(b) Push the passed pawn to the sixth rank, and

(c) Make a run with his king to the passed pawn and try to promote it.

Black cannot stop any of the three steps. His rook is best placed around a2 or a3, where it can attack both the a-pawn and the kingside pawns. The outcome of the game will depend on whether Black can do enough damage on the kingside before he must give up his rook for the passed pawn.

White can take his time with the first two steps. In fact, in the game he took 20 moves of preparation to accomplish step (a) before he was ready for (b).

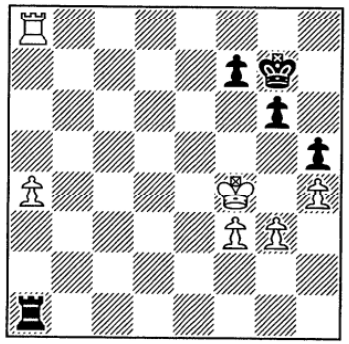

Diagram 200 White to play

1 a5

If allowed, White will play a5-a6, stop the pawn there and run his king to the vicinity of b7. Once the rook is freed he can try for a6-a7-a8(Q).

1 ... Ra4+

This is why White delayed advancing the a-pawn: As long as it sat on the third rank, the pawn stopped checks at a3 and a4.

2 Ke5 Ra3!

The only defense: Black first checks from a distance and then attacks the pawns.

3 Ke4 Ra4+
4 Kd5! Ra3
5 a6!

It's virtually impossible for a non-master to calculate the outcome of what follows. But, you should have confidence knowing that this is the best winning try.

5 ... Rxf3?

This is a blunder, although only a huge amount of post-game analysis revealed it. Now was the time for Black's king—5 ... Kf6! and then 6 Kc6 Rxf3 7 Rb8! Ra3 8 Rb6 Kf5 9 Kb7 Kg4 10 a7 Rxa7+ (otherwise 11 Ra6!) 11 Kxa7 Kxg3. This is what a good winning attempt (and a good defense) looks like. White wins the rook for his passed pawn and then must try to race back with his king to stop Black from promoting on the kingside. In this case, Black manages to draw: 12 Rb4 f6 13 Kb6 g5 14 hxg5 fxg5 15 Kc5 h4 16 Kd4 h3.

Back to the game.

6 Rb8!

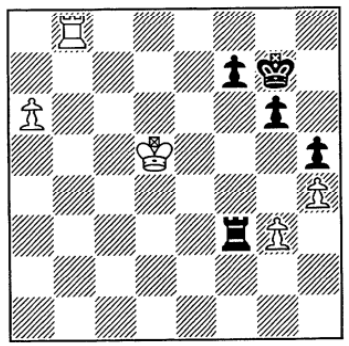

Diagram 201

Thanks to Black's error, White threatens 7 a7 and his rook is freed to set up a barrier with Rb6!.

6 ... Ra3
7 Rb6 Rxg3
8 Kc6 Ra3
9 Kb7

In the game Black tried the desperate 9 ... g5!? 10 hxg5 h4 and then 11 a7 h3 12 a8(Q) Rxa8 13 Kxa8 h2.

After 14 Rh6 f6! 15 Rxh2 fxg5 the rook was misplaced and ... Kf6 and ... g4 were threatened. But, White won with 16 Rf2! Kh6 17 Kb7 g4 18 Kc6 Kg5 19 Kd5 g3 20 Rf8 Kg4 21 Ke4 Resigns.

Let's see what happens after a more orthodox defense:

9 ... f6
10 a7 Rxa7+

Forced, because White threatened to make a full queen after 11 Ra6!.

11 Kxa7 g5

Black keeps more pawns than in the note to move nine and would draw after 12 hxg5 fxg5 because White's king is too far way.

12 Ka6! Kg6
13 Kb5 Kf5!

The king-difference is decisive after 13 ... g4 14 Kc4 Kf5 15 Kd3 g3 16 Ke2 Kg4 17 Rxf6 Kxh4 18 Rg6 Kh3 19 Kf3 h4 20 Rh6 g2 21 Rg6.

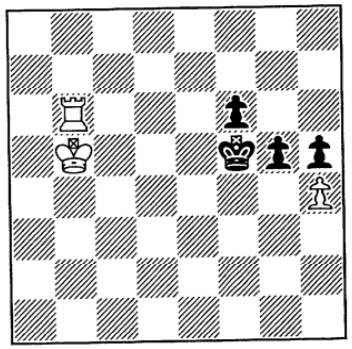

Diagram 202

14 Kc4! gxh4

Black last hope is to use his passed h-pawn to take White's rook out of position.

15 Kd3 h3
16 Ke3 h2
17 Rb1 Kg4
18 Kf2 Kh3

Else 19 Kg2 and Kxh2.

19 Kf3!

And now 19 ... h4 allows White to mate in four by passing with his rook (20 Ra1 f5 21 Rb1 etc.).

That basic formula has been followed literally hundreds of times, with slight variations in the placement of the pawns on both wings. Sometimes it works, and sometimes it fails. But, there is no other plan with as good a chance of success.

However, the formula can also be dispensed with if the defender's rook or king are badly restricted. Then the superior side wins by establishing an impregnable base pawn and finding an exceptionally good place for his rook, a super-square.

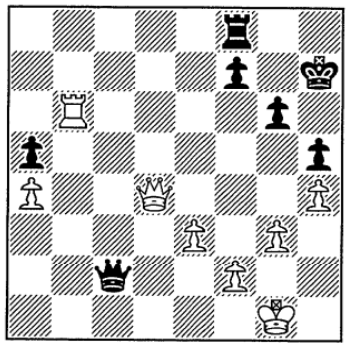

Diagram 203 Kavalek–Kogan, U.S. Championship 1986
White to play

This looks much harder than Diagram 200, but in fact, it is much easier. Although White's extra pawn is the one at e3, he can win by tying Black to the defense of a5. As usual, if White obtains a second extra pawn, the path to victory is much shorter.

1 Rb5! Qc7

White's task is easier after 1 ... Ra8 2 Qd5.

2 Qc5!

White follows that guideline: *An extra pawn and the more active rook or king is enough to win most rook endings.*

2 ... Qxc5

3 Rxc5 Ra8

The difference in rooks will become a difference in kings because White can stop Black's from helping in the defense of the a-pawn.

4 Kf1 Kg7
5 Ke2 Kf6
6 e4 Ke6
7 Rd5!

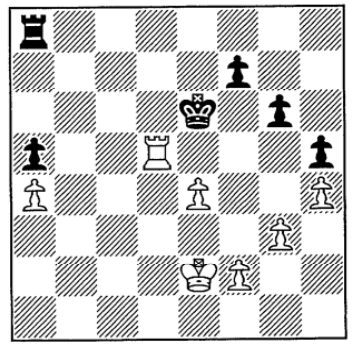

Diagram 204

It is tempting for the defender to exchange pawns with 7 ... f5. But, it presents White with an easy winning plan after 8 Ke3 fxe4 9 Kxe4.

He would place his rook on g5, a super-square. If Black defends g6 with his king, White's king runs unopposed to b7 and wins the a-pawn. If Black's rook is somehow freed and attacks the f2-pawn, White just plays f2-f4!. The rook at g5 defends the base at g3, and everything is safe.

7 ... Ra7
8 Ke3 Ra6

Passive defense is best until White commits himself. If White decides it's time to run toward the a-pawn, Black will wait until he plays Kc4 and then counterattack with ... Rb6-b2.

9 Kf4 Kf6
10 Rb5 Ra7
11 f3 Ra6
12 g4!

A good example of visualization. White sees that he has an easier win with fewer pawns. After the g- and h-pawns are gone his rook has a super-square at f5.

In positions like Diagram 200, the superior side doesn't want to liquidate the kingside because then the defender has nothing to defend there—and can rush his king to the queenside to block White's king. Here, that is not possible because of White's rook.

12 ... hxg4
13 Kxg4! Ra8

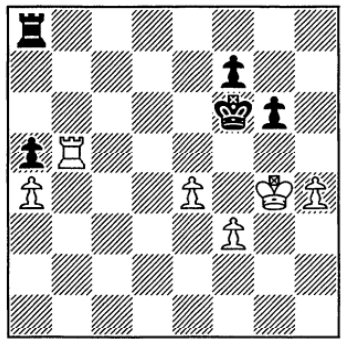

Diagram 205

14 h5! gxh5+
15 Rxh5 Ke6
16 Rd5! Ra6

There is no longer any counterplay from ... Rb6-b3 because of Rxa5 and Rf5!. Therefore, White's king can reach b6 uncontested and the result is a mismatch.

17 Kf4 Ra8
18 Ke3 Ra6
19 Kd4 Ra8
20 Kc4 Resigns

Black cannot save the a-pawn. For example, 20 ... Ra7 21 Kb5 Ra8 22 Kb6 Rb8+ 23 Kxa5 Rb3 24 Rf5 f6 25 Ka6 etc.

The problems of king runs and pawn management usually arise late in the endgame when the minor pieces, as well as the queens, are gone and the mood is calm. One final example shows the transition from an earlier endgame stage. It arose right after a trade of queens on b4, when Black made a bid for counterplay with ... a4!.

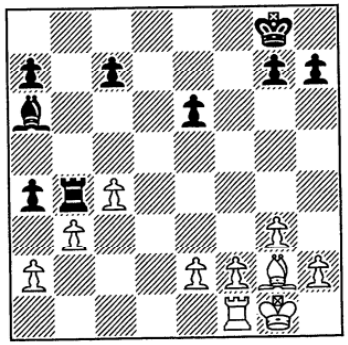

Diagram 206 Vaganian–Nogueiras, Montpellier 1985
White to play

But again counterplay can be neutralized by tactics. White says to himself: "I know my queenside is under attack. But, what does Black have that's unprotected? Where is he weak?"

1 Ra1!

Black can't play 1 ... axb3 2 axb3 Rxb3?? because his bishop hangs. Moreover, White threatens to force favorable changes on the queenside with 2 Bc6!.

1 ... Bb7

On 1 ... Kf7 White replies 2 Bc6! axb3 (or 2 ... a3 3 Rd1! and Rd7+) 3 axb3 Rb6 4 Bf3, and it's Black who is in tactical trouble, e.g. 4 ... c5 5 b4! Bxc4 6 Rxa7+.

2 Bxb7 Rxb7
3 Kf1!

The mood has calmed appreciably and White can take his time to bring his king to c3. This works because 3 ... axb3 4 axb3 Rxb3 5 Rxa7 costs Black a pawn (5 ... c5 6 Rc7).

3 ... a5
4 Ke1 Kf7
5 Kd2 axb3
6 axb3 Rxb3

If you play competitive chess, these kinds of positions are bound to come up. Good technicians win these positions when they have the extra pawn. Good technicians draw them when they are the defender. The key elements are:

a) Think of how to defend your pawns. Is there a base-pawn?

b) Then consider your pieces: Where can you run with your king? When is the right moment? And, is there a super-square for the rook?

QUIZ

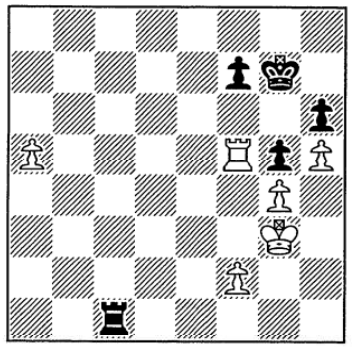

Diagram 209 Leko–Anand, Linares 2003
Black to play

White's rook has a super-square at f5. What is his best plan after 1 ... Ra1, and alternatively, what should he do after 1 ... Rc4 ?

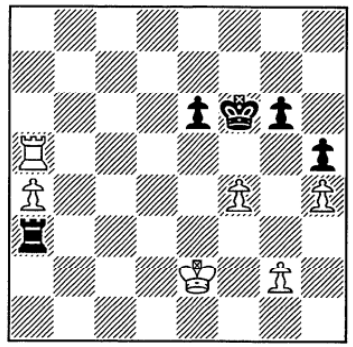

Diagram 210 Averbakh–Euwe, Candidates Tournament 1953
Black to play

Evaluate 1 ... Ra2+ and 1 ... Rg3. Is one clearly better? Why?

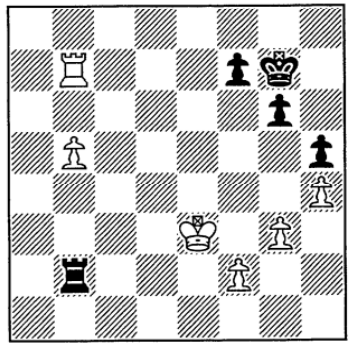

Diagram 211 Spassky–Antoshin, Sochi 1965
White to play

How should White proceed?

CHAPTER 10

Mishaps, Mistakes, and Misfortunes

The good technician knows that it takes a lot to win a won game—and how easy it is to draw one. Next time you hear someone say the final 20 or so moves of a game were "just a matter of technique," remind them of all the ways the winner could have messed up.

These are the mistakes you should avoid. They begin with:

ALLOWING COUNTERPLAY

Or to be more exact, "allowing unnecessary counterplay" because some enemy activity–threats, harassment, and the like–cannot be averted. You should expect this.

But, there is a point where counterplay is not just a concern—it's a serious danger. Failing to contain it may not only blow the win but then lose the draw.

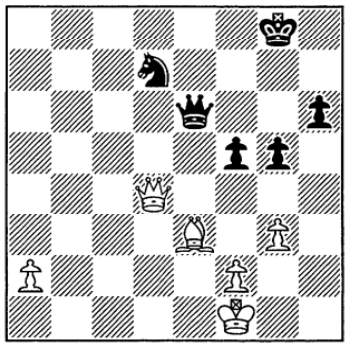

Diagram 212 Morozevich–Belyavsky, Germany 2001
White to play

There is no consensus over when queen and bishop is superior to queen and knight and vice versa in endings. But, in this instance, it

is White's game to win. He can push the a-pawn to a7, where it will be protected by the bishop and be one move from queening.

1 a4 Ne5
2 Qd8+ Kf7
3 Qc7+

White can take his time. *In endings with queens, finding the right square for her is extremely important.*

3 ... Ke8
4 Qb8+ Kf7
5 Qb7+ Kg6
6 Qb6!

White avoids 6 a5 Nc4!, which should draw. He also forces Black's knight backward because 6 ... Qxb6 7 Bxb6 is losing (7 ... Nc6 8 a5 Nb8 9 Ke2 h5 10 Bd8 and Kd3-c4).

6 ... Nc6
7 a5 Kh5
8 Qb5 Qe4
9 a6 Ne5

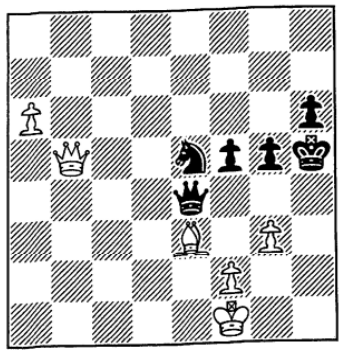

Diagram 213

White could cap off his work with 10 Qb7!. That kind of move is often decisive in queen endings with an a-pawn because it controls the queening square and the "perpetual check diagonal." For example, on 10 Qb7! Qd3+ 11 Kg2 Black can resign.

10 a7? Nf3!

White's easy win is gone. Black's queen and knight coordinate so well that White has to start over. To win now, White must find a way to support a8(Q) and that means shifting his queen away from its fine post.

11 Qa6?

Understandably, White doesn't want to give up the f1-a6 diagonal. But, because of his previous mistake, he needs to calculate carefully. That suggests 11 Qa5 Qd3+ 12 Kg2 because the checks are over.

But, better for Black is 11 ... Nh2+! 12 Ke2 Qc2+ 13 Qd2 Qc4+ 14 Qd3 Qa2+ 15 Kd1 Nf3 and White still has work to do.

11 ... Kg4!

Suddenly Black threatens 12 ... Qb1+ 13 Ke2 Qc2+ 14 Kf1 Qd1+ and mates.

12 Qb5 Kh3

Easy or hard, there is no White win any more because of Black's mating threats and the counterplay offered by ... f4!.

For example, 13 Qb3 f4 14 gxf4 gxf4 15 Bb6?? Qe1 mate, or 15 Bd2! Kh4! and Black has at least a draw with ... Nh2+-f3+.

13 a8(Q)? Qxa8
14 Qxf5+

White is the one seeking a draw by perpetual check now.

14 ... Kh2
15 Qe6

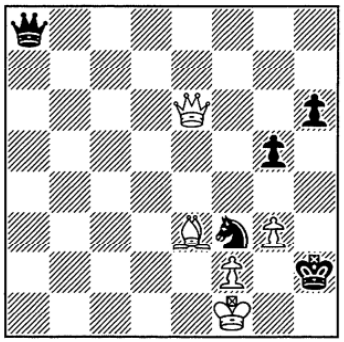

Diagram 214

15 ... Qa1+
16 Ke2 Kg2!

Black has all the chances because of his two winning ideas: mate and the advance of the h-pawn. White collapsed with 17 Kd3 Qb1+ 18 Kc3 h5! 19 Qd5 Qa1+ 20 Kc2 Qa4+ 21 Kc3 h4 22 gxh4 gxh4 23 Qg8+ Kf1 24 Qd5 Qa3+ 25 Kc2 Ne1+ 26 Kb1 Qd3+! and the pawn queens.

"Don't forget," postal champion Grigory Sanakoev said, "there is no such thing as a won position that it is impossible to lose."

PERMITTING PERPETUAL CHECK

As he progresses through the ending the good technician should keep a mental checklist of things to avoid. He should regularly ask himself certain questions, beginning with: "Does he have any counterplay now?" Had White asked himself that question around move 10-11 in the last example, he would have avoided disaster.

The most familiar form of harassment, in endings with queens, is checks. But it is also one of the easiest kinds of enemy play to deal with, if you understand the subtlety of creating escape squares, that is, *luft*.

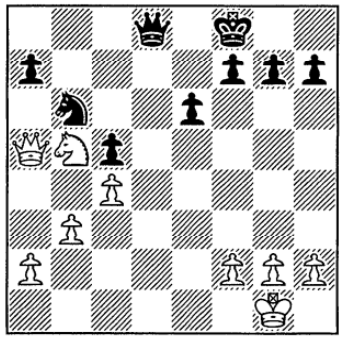

Diagram 215 Tal–Lipnitsky, Lugansk 1955
White to play

Once White wins the a-pawn, he should be able to quickly convert his pawn majority on the queenside. But, first he must deal with ... Qd1+. Eighteen-year-old Mikhail Tal learned a lesson in this game about the care required in finding safety for his king.

1 h3?

This is the natural way of making luft. But, it creates a simple checking pattern for Black. After the superior 1 g3! Black's only way of obtaining a perpetual would be to get his queen to b1 (or e1) and then begin a series of checks between that square and e4.

But, that fails because 1 ... Qd1+ 2 Kg2 Qb1 3 Nd6! denies Black e4, and White cleans up with Qxc5 or Qxa7.

Also, 2 ... Qe2 3 Nc3 Qe5 just loses a pawn to 4 Qxa7!.

1 ... Qd1+
2 Kh2 Qc1!

Here's the drawing mechanism: checks on c1 and f4.

3 g3

This concedes a draw. But the even more loosening 3 g4—which would work after 3 ... Qf1 4 Qd2!—fails to 3 ... Qc2 4 Kg3 Qd3+ 5 f3 Qe3.

3 ... Qc2!
4 Kg1 Qb1+
Draw

There was no longer an escape route (5 Kg2 Qe4+).

The lesson here is that *perpetual check is always a danger in endings with queens on the board*. But, a bit of care should suffice.

TAKING MATERIAL YOU DON'T NEED

As mentioned earlier, knowing how much material is enough to win is a very valuable skill. It's also a skill that can be learned.

Too often a player will "grab now, think later" because he believes it can't hurt to pick up another pawn or two. "In time trouble everybody grabs pawns," David Bronstein once said. This is especially attractive when that pawn seems to be the only source of enemy counterplay.

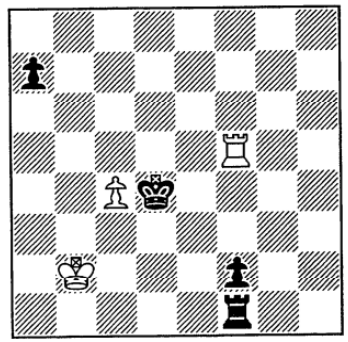

Diagram 216 Simonov–Smugaliev, Anapa 1991
Black to play

Black wins with 1 ... Ke3!, threatening to move the rook and promote, e.g. 2 Rf8 Re1 3 Re8+ Kd4 4 Rd8+ Kc5 and White soon runs out of checks. White loses even faster after 2 Re5+ Kf4!.

1 ... Kxc4??

The only reason this could be good is if Black needed to eliminate counterplay (meaning c5-c6) before trying to promote the f-pawn.

2 Rf8!

But this draws. Black's rook can't move without losing his only bankable asset, the f-pawn. If the king tries to get back to e3 to protect the pawn, it gets checked away.

As we saw in Diagram 8 way back in Chapter One, grabbing an enemy pawn can be disastrous if it impairs your own pawns. But, there is another danger. An enemy pawn often serves as a roadblock to the enemy king. Case in point:

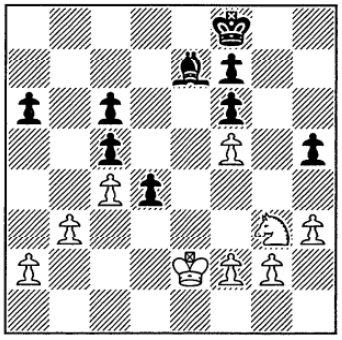

Diagram 217 Volokitin–Ponomariev, Lausanne 2001
Black to play

Material is equal but White's positional edge is extensive, thanks to the doubled Black pawns and bad bishop.

1 ... Kg7!
2 h4!

An intriguing decision. Taking the h-pawn wasn't bad—but it was hard for White to be sure it was good. Let's do a little visualizing:

To win, White needs a promotable passed pawn. But, he must also keep either his king or knight in reserve to stop Black's passed d-pawn.

Is the h-pawn likely to queen after 2 Nxh5+? No, it won't get beyond h5. That means White has to win somewhere else on the board, and take the risk that Black will make kingside inroads in the White king's absence.

Instead, White concluded that he was better off with the two h-pawns being where they are now, so that Black never has the possibility of ... Kg5.

2 ... Kh6
3 Ne4 Kg7
4 Kd3 Kh7
5 Kc2!

White threatens to win in one move, as Capablanca might say, with Kxa6.

5 ... Kh6
6 Kb2 Kg7
7 Ka3 Bd8!

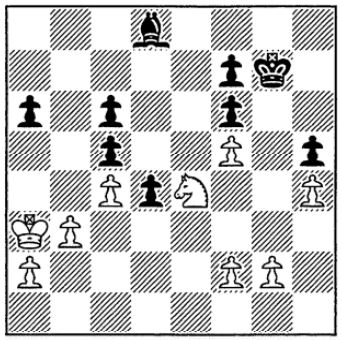

Diagram 218

Black surrenders his weakest pawn to stop Ka4-a5. Now 8 Nxc5 Bb6 sets traps (9 Nd7 or 9 Nxa6 are met by 9 ... d3!, threatening ... d2 or ... Bxf2).

White can still win with 9 Nd3! c5 10 b4, but he chose a faster method.

8 Ka4 Bb6
9 b4! cxb4

Since he's objectively lost, Black should have tried 9 ... d3 to see if White would find 10 b5!, after which the a-pawn decides.

10 c5 Bc7
11 Kxb4 Bf4
12 Kc4 Be5

Now 13 g3 and 14 f4 does the trick, but White preferred:

13 Ng3

White wins with Ne2xd4xc6 or in any pawn ending (such as 13 ... Bxg3).

So make another addition to your checklist: "Do I really need to win this pawn? Does it get me closer to winning?" If the answer is no, walk away.

IMMOBILIZING PIECES

Time, we should know by now, is on the side of the technician. In the vast majority of cases he can afford to improve his position slowly. He can accept temporary inconvenience, such as allowing a rook to become passive.

But there's a thin line that separates a little bit of inconvenience from a critical mass of trouble.

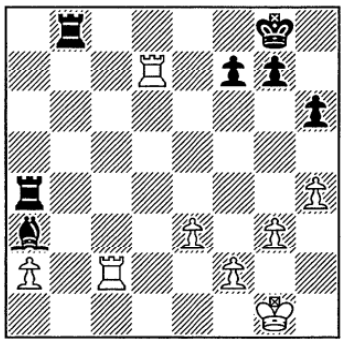

Diagram 219 Anand–Fritz 6, Ordix 1999
Black to play

The mini-plans Black should consider are (a) doubling rooks against the a-pawn, or (b) trying to force a trade of rooks on b2 or (c) transferring a rook to f6 in order to defend his only weak point while preparing to attack f2.

1 ... Bb2

Not 1 ... Rb2 immediately because 2 Rc8+ costs at least the f-pawn (2 ... Kh7 3 Rxf7; 2 ... Bf8?? 3 Rdd8)

2 Kg2!

This sets a trap. By avoiding potential first-rank checks, White takes away the only escape from the pin he plans.

2 ... Rxa2??

This passes the "Do I really need this pawn?" test. But Black should have continued 2 ... Bf6 and, if allowed, 3 ... Rb2. If he's stopped by 3 Rdd2, Black can bring his king to e6 and/or trade rooks by means of ... Ra3-c3.

3 Rdd2!

The computer calculated and calculated—until its human controllers conceded the draw. Fritz cannot extricate his a2-rook from the pin without losing a pawn, and there is no way his king or pawns can improve matters.

This is not just another "Boy, those machines can be stupid" story. It illustrates a fundamental difference in thinking. Computers evaluate the position after 3 Rdd2 as very favorable for Black (more favorable than the position before 2 ... Rxa2??) because they don't worry about making progress. But humans must think about their next step.

So, to our checklist we should add another warning: If you make one of your pieces immobile or just passive, ask yourself if you need that piece to win. And if so, how are you going to extricate it?

TRADING TOO MANY PAWNS

If Fritz had been a human, his frustration with slow measures would be understandable. Technique requires almost machine-like patience. The technician has to be particularly careful about irrevocable changes in the position, such as pawn swaps.

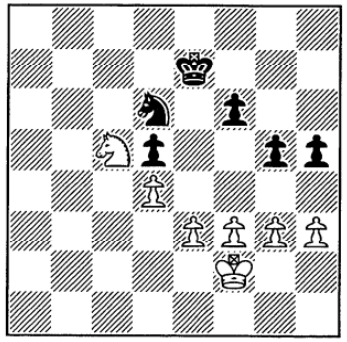

Diagram 220 Timman–Andersson, Tilburg 1987
White to play

If you have one extra pawn in a knight ending, your chances depend largely on the total number of pawns on the board:

a) If the position has only two pawns against one, it's usually a draw (with best play). Typically, the defender will be able to block both pawns or, if there is a trade of pawns, to sacrifice his knight for the last pawn on the board.

b) If it's three pawns against two, it's still a likely draw. But, there are winning chances if the superior side has a passed pawn or if his pawns lay on both wings, making a mismatch possible.

c) If it's four pawns against three, it's generally a win.

In this position White has five against four and that means he should win even without a lot of fancy finesses.

Of course, he will have to initiate some trades to make any progress. But with so many pawns left, White can bear 1 e4! because a swap on e4 will create a passed d-pawn.

1 Ke2? Nf5
2 g4?

A fundamental error since Black can trade a pair of pawns immediately and will threaten to trade another pair with ... f5. Better was 2 Kf2 followed by Nb3 and e3-e4—in other words, starting over.

2 ... hxg4
3 hxg4 Nh6!

Forget those opening and middlegame warnings ("knights on the rim are grim"). Endgame knights do some of their best work on the side of the board. Note that on 3 ... Nd6 White can put his knight on the rim—4 Na6!, threatening 5 Nc7!.

4 e4

The best chance was chance 4 Kd3!, e.g. 4 ... f5 5 gxf5 Nxf5 6 e4.

4 ... dxe4
5 Nxe4

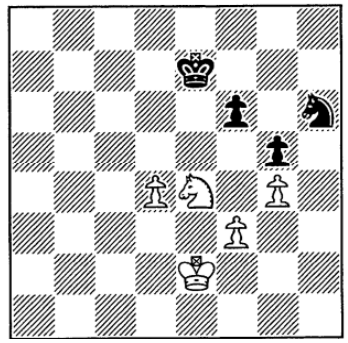

Diagram 221

White finally has his passer and is ready to make it count, e.g. 5 ... Ke6 6 Kd3 Nf7 7 Kc4 (although 7 ... f5 8 Nc5+ Kf6 9 Kd5 fxg4 10 fxg4 Nh6 would still be hard to beat).

5 ... f5!

White is down to his final pawn after 6 Nxg5 fxg4 7 fxg4 Nxg4 and Black can draw by sacrificing his knight for the pawn as soon as it reaches d5.

Another key point is that 6 gxf5 Nxf5 7 Kd3 Ke6! 8 Nxg5+ Kd5 and ... Nxd4 will also draw.

6 Nf2 Ke6
7 Ke3 Ng8
8 Kd3 fxg4

Now 9 fxg4 fails to make progress after 9 ... Nf6 10 Kc4 Kd6.

9 Nxg4 Kf5

White's d-pawn is easily stopped and he agreed to a draw after 10 d5 Ne7 11 Kc4 Kf4 (in view of 12 d6 Nc8! 13 d7 Nb6+).

Bear in mind that even if you start out with N-and-eight Ps versus N-and-seven, the best you may be able to achieve at the end of the road is N-and-one versus N. Yet, it can be a win if it's the right one.

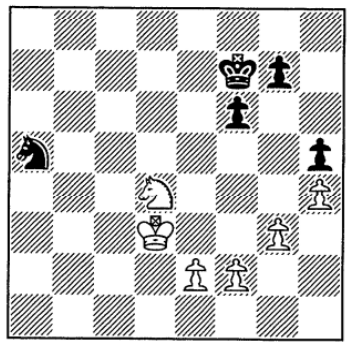

Diagram 222 Milov–Grischuk, Biel 1999
White to play

1 e4

White follows a basic endgame principle: *The first pawn you should push is the one that is most likely to become passed.* White is thinking: "Next I play f2-f4 followed by e4-e5."

1 ... Nb7

This allows White's king into d5 but it was the only way for Black to get his knight into play.

2 Kc4! Nd6+
3 Kd5 Ne8
4 f4

Kings should not fear knight checks if they can respond by attacking the knight (4 ... Nc7+ 5 Kc6) without allowing a new check.

4 ... Ke7

The first stage is over. Black has coordinated his king and knight fairly well and can put up some resistance with checks, or by blockading. White, on the other hand, has secured the best king position he can. It's time for the next stage.

One mini-plan is making a passed pawn with 5 e5. Another is to prepare that advance with 5 Ne6 to rule out ... Nc7+. Then he can meet 5 ... g6 6 e5 Kf7 with 7 Nd8+ Ke7 8 Nc6+ Kf7 9 e6+!, leaving a position similar to what happens in the game.

5 Nf5+

White chooses a third way. He exploits the possibility of 5 ... Kf7 6 Nd6+!, a won pawn endgame, to drive Black's king away from the kingside.

5 ... Kd7

Black offers less resistance after 5 ... Kf8 6 e5 (or 6 Ke6 and 7 e5).

6 e5 Nc7+
7 Ke4

There is no progress to be made by 7 Kc5 Ne6+.

7 ... g6
8 Nd4 Ke7

Only a very confident defender would play 8 ... f5+. It not only gives White a protected passed pawn but also invites the attractive sacrifice 9 Nxf5 gxf5+ 10 Kxf5 Nd5 11 Kg6.

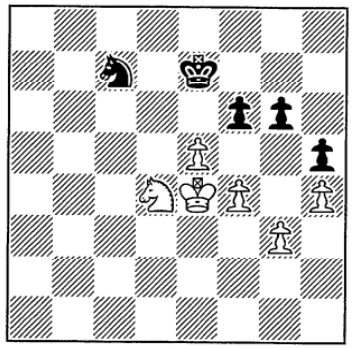

Diagram 223

White's basic goal was to create a passer that is separated from the other pawns by at least one file (8 ... fxe5? 9 fxe5!). Then Black would have to watch that pawn while White raided the kingside with Kf4-g5. But, Black's sit-tight policy stopped that strategy. What now?

9 f5!

Yes, this allows the liquidation of four more pawns. But, it dooms Black's h-pawn and that makes White's h-pawn very hard to stop.

Rook pawns are the best to have in knight endings because the defender's knight can only attack them from one side. Now 9 ... g5 10 hxg5 fxg5 allows White to create a pair of killing passers.

9 ... Kf7

On 9 ... fxe5 10 Kxe5 gxf5 11 Kxf5 White wins the h-pawn by force. Then, with normal care, he can prevent a drawing blockade (11 ... Nd5 12 Kg6 Nf6 13 Nf5+ Ke6 14 Ng7+).

10 e6+ Kg7
11 Ne2

The threat of Nf4xg6 breaks the blockade at e7. White had other methods, such as 11 fxg6 Kxg6 12 e7 Kf7 13 Nf5, but they leave a greater chance for a miscalculation. There was no reason for White to take irrevocable steps.

11 ... gxf5+

Not 11 ... g5 12 hxg5 fxg5 13 Ke5 Ne8 14 Nc3 and Nd5/f5-f6+.

12 Kxf5 Nb5

Setting a cute trap, 13 Nf4??? Nd6 mate. The chief alternative, 12 ... Nd5, fails to 13 Nf4 Ne7+ 14 Ke4 Kh6 15 Nd5.

13 Ke4

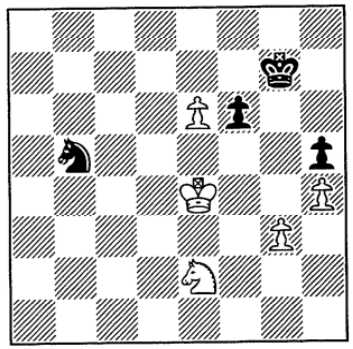

Diagram 224

13 ... Kf8

Black abandons the h-pawn because after 13 ... Kh6 14 Kd5! his knight is in a mismatch with the White king and e-pawn (14 ... Nc7+ 15 Kd6 Ne8+ 16 Kd7).

14 Nf4 Ke7
15 Kf5 Nd6+
16 Kg6 f5

Now 17 Kxh5 Kf6 18 e7! Kxe7 19 Kg6! and 20 h5 is one way of winning.

White preferred 17 Nxh5 Kxe6 18 Ng7+ Ke5 19 h5. Black managed to get one more pair of pawns off the board with 19 ... f4 20 gxf4+ Kxf4 21 h6 Nc4 22 Ne6+, but he resigned in view of 23 h7. (White avoided one last trap in 22 h7? Ne5+ 23 Kf6 Nd7+ 24 Ke7 Ne5!).

The moral is: *If you are ahead material, try to keep pawns on both wings.*

And if you're down to your last pawn or two, be sure they cannot be traded off. Better yet, try to visualize how you are going to queen one of them.

"ROOK ENDINGS ARE NEVER WON"

This epigram by Siegbert Tarrasch isn't true, of course. But, enough winning positions are spoiled by converting them to drawable rook endings that it should be engraved in gold.

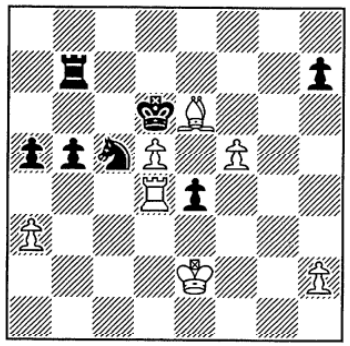

Diagram 225 Macieja–Pavasović, Portorož 2001
Black to play

With an extra pawn, a nicely centralized king and a superior minor piece, Black has all the ingredients of a win. White's passed f-pawn can become a source of counterplay, but Black can create an outside passer that will count more. As for the potential piece trades, one is very good for Black, one is not.

1 ... b4!
2 axb4 axb4

This recapture is natural but 2 ... Rxb4! was better. Why? Because it is forcing (3 ... Rxd4 is threatened), and because a trade of rooks will leave White's king with the hopeless task of trying to stop two passed pawns (3 Rxb4 axb4 4 Kd2 b3 5 Bf7 e3+! 6 Kxe3 b2).

If White avoids the trade, he is slowly pushed back, e.g. 3 Rd2 a4 4 Ra2 Ke5 followed by ... Rb3 and ... a3.

3 f6!

White's only chance. After 3 Kd1 b3 4 Kc1 Nd3+ he can resign (5 Kb1 Rg7! threatens 6 ... Rg1 mate).

3 ... Nxe6??

Bad evaluation! The ending had to be easier to win with minor pieces on the board, and this is borne out by 3 ... b3 and wins (or the super-cautious 3 ... Rb8 4 f7 Ke7).

4 dxe6+ Kxe6
5 Rxe4+ Kxf6
6 Kd2 b3

Black still seems to be winning. He has three ways of making progress: (a) capturing the h-pawn with his king, (b) sending his king in the other direction to defend the b-pawn and free his rook for, say, ... Rg7-g2+, or (c) giving up the b-pawn for the h-pawn and then trying to promote his own h-pawn.

7 Kc1 Kf5

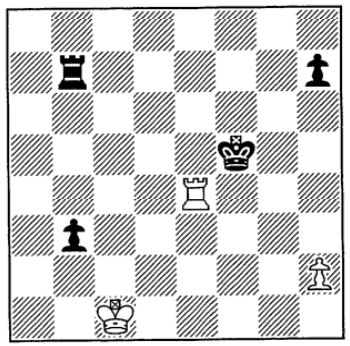

Diagram 226

8 Rc4!

But this shuts the king out. Now on 8 ... Ke5 9 Kb2 Kd5 White can just shift his rook along the fourth rank. Seeing that dead end, Black opts for plan (c).

8 ... Re7
9 Rc3!

Now 9 ... Re2 10 Rxb3 Rxh2 is a draw because White's king gets back to the kingside in time (11 Kd1 h5 12 Ke1 h4 13 Kf1).

9 ... Rb7

Hoping to get closer to the h-pawn with 10 ... Kg4.

10 Rc4!

Black cannot make progress. The game ended soon after 10 ... Re7 11 Rc3 Re1+ 12 Kb2 Re2+ 13 Kxb3 Rxh2 14 Rc5+!.White just keeps checking until Black's king approaches (14 ... Ke4 14 Rc4+! Kd5 15 Rc8) and the draw will be obvious after he plays Kc3-d3-e3.

But hold on. Didn't we see back at Diagram 83 that trading down to a rook ending is often the fastest way to win?

Yes, swapping everything but rooks and pawns can usually win when the resulting position is a two-pawn edge. It is often—but not always—enough with a one-pawn edge. And swapping works in equal material positions in which you have a big king-difference, or a much better rook.

In the next example, White passes up the chance to grab a quick extra pawn until he's sure it's enough to win.

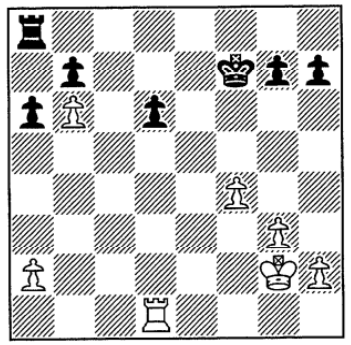

Diagram 227 Gulko–Serper, U.S. Championship 1999
White to play

After a series of exchanges, White is ready to cash in.

1 Rc1!

But, first he needs to stifle Black's counterplay (1 Rxd6? Ke7 and 2 ... Rc8!).

1 ... Re8

Black is hopelessly passive after 1 ... Rb8 2 Rc7+ Kf6 3 Kf3. White's superior rook and king can then be translated into an extra pawn with Ke4-d5xd6.

2 Rc7+

White also enjoys a winning king-difference in all the pawn endings after 2 ... Re7 3 Kf3!. For example, 3 ... Ke8 4 Rxe7+ Kxe7 5 Ke4 Ke6 6 f5+ and 7 Kd5, or 3 ... d5 4 g4 Ke6 5 Rxe7+ Kxe7 6 Ke3 Kd6 7 Kd4 Kc6 8 f5 Kxb6 9 Kxd5 and 10 Ke6.

2 ... Kf6
3 Kf3 Re1
4 Rxb7 Ra1

Black loses after 4 ... Rb1 5 Ke4 and Kd5-c6. Once White's rook is freed to leave the b-file, a quick promotion follows.

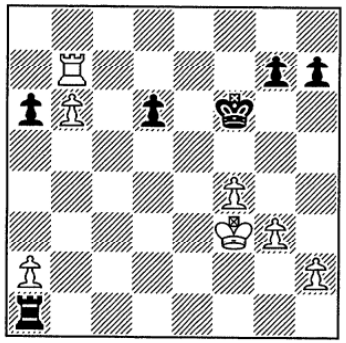

Diagram 228

5 Rb8 Kf7

Black could not allow 6 Rf8+ Ke7 7 b7!. His next move also threatens b6-b7.

6 Ra8! Rb1
7 Rxa6

Black cannot stop a4-a5, the nail in his coffin. He resigned after 7 ... d5 8 a4 Rb3+ 9 Ke2.

ALLOWING A FORTRESS

One of the rarer, but most frustrating defenses, is the impregnable fortress. This often happens when there are no pawns left. Even though one player has a substantial material edge, the defender may draw by setting up a defensive wall that shuts out the enemy pieces.

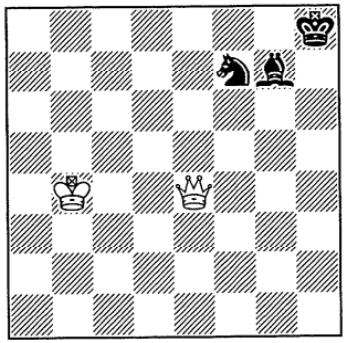

Diagram 229
Black to play

White has a substantial material edge. But after 1 ... Ne5!, Black locks the door on his fortress. His king can pass from now until kingdom come (... Kg8-h8-g8) because his pieces protect one another. White cannot win unless his king gets close to Black's but that is no longer possible since it is barred from f8, f7, f6, g6, or h6.

Of course, this kind of position is very rare. More often, a fortress is built with the help of a mountain of the defender's pawns. Then your only recourse is to take extreme steps to tear it down. This may mean a sacrifice you wouldn't ordinarily consider.

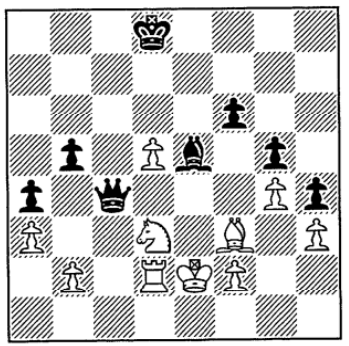

Diagram 230 Balashov–Yusupov, Minsk 1982
Black to play

As strange as it may seem, this position hadn't changed much in 50 moves (!). Black tested the defense with lengthy maneuvers and a few minor pawn pushes. But, there was no way for his king to help out. Finally, he seized his chance:

1 ... b4!
2 axb4 Bxb2!!
3 Rxb2 a3

The point: Black's new passed pawn will cost a rook.

4 Rd2 a2

Now 5 Rd1 Qc2+ 6 Ke1 Qxd1+ or 5 ... Qc3.

5 Rxa2 Qxa2+
6 Ke3 Qb1

Black has broken into the fortress, and enlarged his material edge. But, there is a new fortress developing. He can tear down this one too if his king breaks in or if his queen wins the h-pawn.

7 Ke2 Kc7

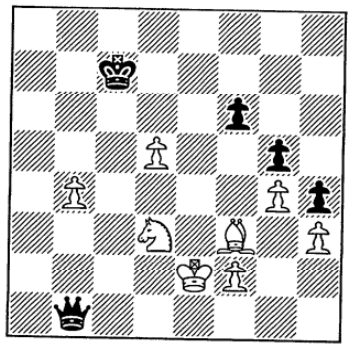

Diagram 231

8 Ne1

White is close to sealing up the fortress with Ng2-e3! and Bg2.

8 ... Qxb4
9 Ng2 Qc4+
10 Ke1 Qc1+
11 Ke2 Qc2+
12 Ke1 f5!

Now 13 Ne3 was the only way to resist.

13 gxf5 Qxf5

And White resigned because ... Qxh3 is threatened and 14 Bg4 allows 14 ... Qxg4! 15 hxg4 h3 16 Kf1 h2.

In summary, the good technician anticipates problems—like the creation of a fortress, or dangerous counterplay, or perpetual check—before they occur. He keeps a mental checklist of the most familiar mistakes. And he avoids taking irrevocable steps, like trading pawns or swapping down to a rook endgame, until he has a good idea of the consequences.

QUIZ

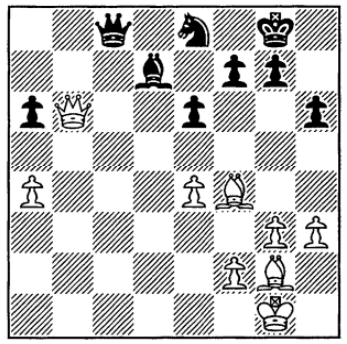

Diagram 232 Bareev–Karpov, Dortmund 1995
White to move

What's better, 1 Bf1 or 1 a5 ?

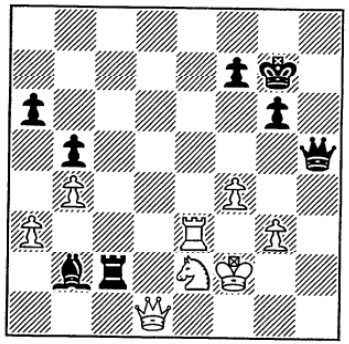

Diagram 233 Salov–Anand, Wijk aan Zee 1998

Black to play

Evaluate the consequences of 1 ... Rc1.

CHAPTER 11

Putting It All Together

Since this is the last chapter, you must have mastered technique by now. You know enough to convert almost any two-pawn edge to victory, and can win most one-pawn advantages and many positions in which material is even.

No? Well, you may not feel confident in your skills yet. But, you'd probably be surprised how much you've picked up in the course of these pages. As we pointed out at the beginning, technique—big T technique—is an amalgam of little-t techniques plus patience, visualization, logic, and a few other attributes. Let's review how it all fits together.

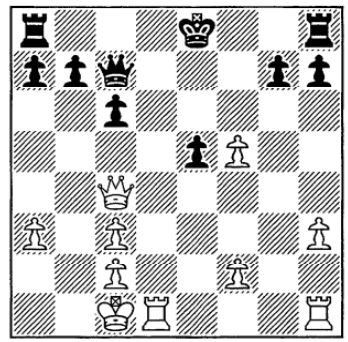

Diagram 234 Magomedov–Amonatov, Dushanbe 1999
Black to play

White has a serious initiative because of Black's inability to castle. If allowed time for Rhe1 and f2-f4, he would win quickly.

1 ... Qf7
2 Qb4!

White can grab a pawn with 2 Qxf7+ Kxf7 3 Rd7+. But, after 3 ... Kf6 4 Rxb7 Rhb8 he has a lot to prove (5 Rd7 Rd8 6 Rhd1 Rxd7 7 Rxd7 a5).

It's true White would have an extra pawn and the superior rook after Rxb7. But, there are other factors here; all six of his pawns are either doubled or isolated.

White's position deserves a bit better than that, so he should avoid a queen trade and also stop ... 0-0.

2 ... Qe7

Black would not last long after 2 ... Qxf5 3 Rhe1 and 4 Qc5 or 4 f4.

Better is 2 ... a5 3 Qd6 Qe7, and then 4 Rhe1 Qxd6 5 Rxd6 0-0 6 Rxe5 Rf7. Black's king is not nearly as active as in the 2 Qxf7+ line but he would still have good drawing chances.

3 Rhe1! Rf8?

Black is reluctant to correct White's pawn structure, but 3 ... Qxb4! 4 cxb4 0-0 would have reduced his losing chances (5 Rxe5 Rf7! 6 Rde1 Kf8).

4 Qxe7+

Not much choice here, since ... Rxf5 was threatened.

4 ... Kxe7
5 Rxe5+ Kf6

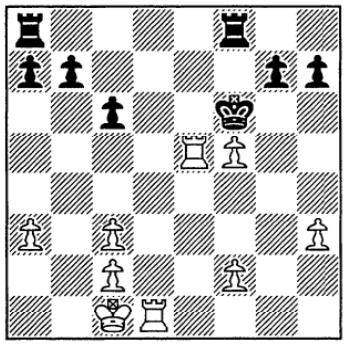

Diagram 235

Time to evaluate:

a) White is a pawn ahead and has the more active rooks. But, none of his pawns looks healthy enough to queen in even the distant future.

b) Black will have chances to grab pawns along the f-file with his king or rook.

c) The mood is somewhat urgent because Black's pieces are not well coordinated.

d) Another consideration is trades. An exchange of one pair of rooks would help White (if he can trade off Black's active rook at f8, rather than the other one).

e) Finally, there is no specific plan that suggests itself, just the universal one of creating a passed pawn and pushing it.

6 Re6+!

White acts tactically while the mood is right. Now 6 ... Kf7?? allows an immediate win, 7 Rd7+ Kg8 8 Ree7. And since 6 ... Kg5 7 Re7 is worse for him than the game, Black must acquiesce to an indirect trade of pawns—a good Black pawn on his second rank for the weakie on f5.

6 ... Kxf5
7 Re7

Black will lose another pawn after 7 ... Kf6 8 Rxb7.

7 ... g5!

Now, however, he has the most advanced pawn on the board, and White cannot ignore it as a potential queen.

8 Rxb7!

White's leading candidates for queenhood all lay on this wing, so this is the pawn to take. After 8 Rxh7 b6, or 8 ... Rh8, he is a long way from obtaining a passer.

8 ... h5

Black's best source of counterplay are his two healthy kingside pawns and his prospect of ... Rxf2.

9 Rd6!

Good tactics make good technique. Now 9 ... Ke5 10 Rxc6 Rxf2 allows 11 Rb5+! Ke4 12 Re6+ Kf4 13 Rf6+! (13 ... Ke3 14 Re5 mate!, or 13 ... Kg3 14 Rxg5+).

9 ... Rf6
10 Rxf6+

Another plus for White; Black's active rook is traded off.

10 ... Kxf6
11 Rc7

Passive play (11 ... a5 31 Rxc6+) would be fatal to Black.

11 ... Rf8!

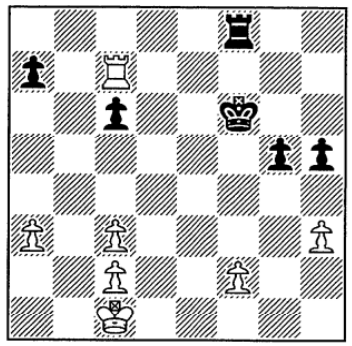

Diagram 236

One of the few psychological weapons the defender can have is surprise moves that force the technician to make choices.

White probably expected 11 ... Re8, and wondered if he could win then with 12 Rxc6+ Re6 13 Rxe6+ Kxe6 14 Kd2 Kf5, or would have to play 12 Rxa7 Re1+ 13 Kd2 Rh1 and ... Rxh3 instead.

But, 11 ... Rf8! raises the possibility of a queening race (12 Rxc6+ Kg7 13 Rc7+ Kg6 14 Rxa7 Rf3) in which Black's h-pawn, supported by his more active king, provides serious counterplay and even winning chances.

12 Kd2!

White appreciates that he should take his time. He prepares to secure the kingside with Ke2, after which his queenside pawns must win.

12 ... g4?

Black panics. The consistent way was 12 ... Ke5 13 Ke2 Rf4! followed by ... Ra4xa3, or ... Rh4xh3.

13 hxg4 hxg4
14 Rxc6+ Ke5
15 Ke2 Rf3

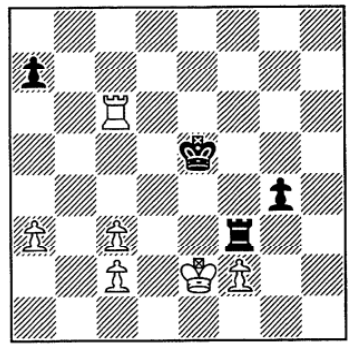

Diagram 237

16 a4!

There were still plenty of natural ways to draw this won game, and number one among them was trying to force matters (16 Rg6 Rxc3 17 Rxg4 Rxc2+, or 16 Rc7 Kd6 17 Rxa7 Rxc3).

When your opponent has no particularly useful move, look for little ways of improving your position, such as advancing a potential passer, like the a-pawn here. White also sees that it will be useful to have the a-pawn on the fourth rank, where it would be protected, in case he decides to simplify with an eventual Rxg4.

16 ... Kd5
17 Rc7 a5

18 Rd7+ Kc4
19 Rd4+!

White can offer a rook trade instead with 19 Rd3. But, 19 ... Rxd3 20 cxd3+ Kxc3 21 Ke3 Kb4 is difficult to calculate, and 19 ... Rf4 is tough to beat.

White visualized a different material conversion.

19 ... Kxc3
20 Rxg4 Rf5
21 Re4! Kxc2
22 f4!

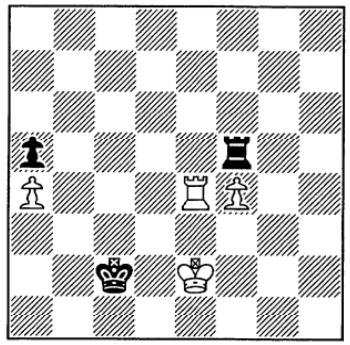

Diagram 238

If it weren't for the presence of the a-pawns, this would be a simple book win because of the king difference.

With the a-pawns off the board, White would win by pushing the f-pawn, e.g. 22 ... Rf7 23 Kf3 Kd3 24 Ra4 Rf8 25 Kg4 Ke3 26 f5 followed by 27 Kg5 and 28 f6 etc. Or 25 ... Rg8+ 26 Kh5 Rf8 27 Kg6 Rg8+ 28 Kf6 Rg4! 29 Ke5! followed by 30 Ra3+ and 31 f5.

The addition of the a-pawns complicates matters—which is another way of saying White has to take more time. The rest was relatively uneventful. White's king can get to the fifth rank so there isn't enough checking distance for Black: 22 ... Kb3 23 Kf3 Rf8! 24 Kg4 Rg8+ 25 Kh5 Rf8 26 Kg6 Rg8+ 27 Kf7! Rg4! 28 Kc6 Kc3 29 Ke5 Kd3 30 Rd4+ Ke3 31 Rc4 Kd3 32 Rc5 Ke3 33 Rc3+! Kd2 34 Rf3 Kc2 35 f5! Rxa4 36 f6 Rb4 37 f7 Rb8 38 Ra3 Resigns.

Our final example is harder and requires White to find more good moves to win. But, that is the reward of the good technician—

knowing that his accuracy, patience, and judgment will pay off in the long run even against top-notch defense.

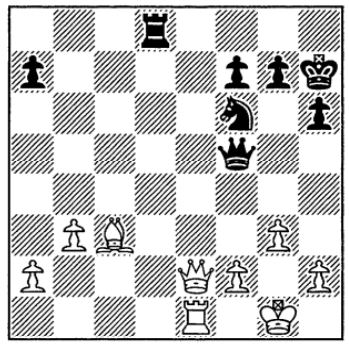

Diagram 239 Huebner–Handke, Germany 2001
White to play

White has an extra pawn, a fine bishop opposing Black's knight and no major weaknesses to concern him. Black has no obvious counterplay, so White has a relatively free hand.

1 Bxf6!

A surprising decision, but this is another case of "What stays on ...". Black's knight is not a bad piece, and his heavy pieces are quite active after 1 Qe5 Qf3. The chief reason the capture on f6 is strong is that it forces a very favorable trade of queens.

1 ... Qxf6
2 Qe7!

White can already visualize a near-winning position–a rook ending in which his rook will get to the seventh rank and his king can enter action by way of Kg2-f3-e3.

2 ... Rd2

White is winning another pawn after 2 ... Qxe7 3 Rxe7. That second extra pawn turns a difficult grind into a reasonably routine matter (e.g. 3 ... a5 4 Rxf7 Rd2 5 a4 followed by Rb7-b5 as in the game.)

3 Qxf6!

If Black tries to confuse matters with 9 ... f4, White's best is 10 g4!, keeping his pawns in pristine shape.

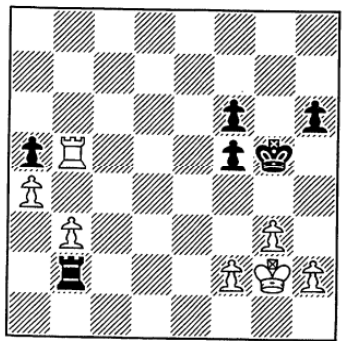

Diagram 241

10 Kf3

White can trade pawns (Rxa5) whenever he wants to, but there is no benefit to that now. It's better to keep his rook on the b5 supersquare where it limits the options of Black's rook.

But how does he win? One idea is to run the king to the queenside, either to protect b3 so that Rxa5 creates a pair of passers, or to win the a-pawn with his king. Another idea is to get the king to f4 so that he can play Rxf5. In any scenario, White must put his kingside house in order first.

10 ... Rc2

Black, for his part, can only choose between innocuous moves (... Kg6-g5), or this, which enables him to meet Rxa5 with ... Rc3+.

11 h4+ Kg6
12 Ke3 h5
13 f3!

White completes the house-building and threatens to win on the kingside, e.g. 13 ... Rb2 14 Kf4 Rb1 15 Rxf5 Rxb3 16 Rxa5 with something very much like the game.

13 ... Rc3+!

14 Kf4!

Running to the queenside is the best plan when it's the only plan. But, here 14 Ke2 Rc2+ 15 Kd3 Rf2 16 Rxa5? Rxf3+ costs him a kingside pawn. A better way of minimizing the damage then is 16 f4! Rf3+ 17 Kc4 Rxg3 18 Rxa5. But, after 18 ... Rg4! Black obtains a strong passed pawn that may draw.

14 ... Rd3
15 Rxf5!

Now is the time. White had to have confidence that the pawn ending (15 ... Rxf3+ 16 Kxf3 Kxf5) is won. It is.

15 ... Rxb3
16 Rxa5 Rb4+
17 Ke3 Rb3+

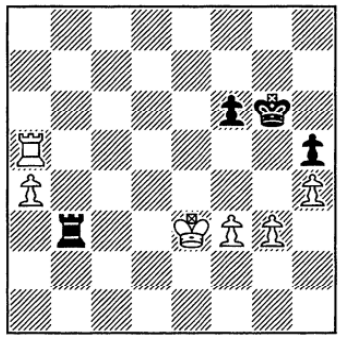

Diagram 242

18 Ke4!

Computers will tell you that White should keep his extra pawns with 18 Kf2 Rb2+ 19 Kf1 Rb1+ 20 Kg2 Rb2+ 21 Kh3. But, they don't seem to know how to win after 21 ... Rf2! 22 f4 Ra2.

18 ... Rb4+
19 Kd5 Rb3
20 Rb5!

The rook jumps at the chance to get off the a-file with a forcing move.

20 ... Rxf3
21 a5 Rxg3

Otherwise Black loses because his king will be cut off along the fifth rank while White advances his pawn (21 ... Ra3 22 Kc6 followed by 23 Kb6 and 24 a5).

22 Kc6

Black must give up his rook for the a-pawn because he loses faster after 22 ... Rg4 23 a6 Rxh4 24 a7 Ra4 25 Kb6, threatening Ra5. For example, 25 ... Rxa7 26 Kxa7 f5 27 Kb6 Kg5 28 Kc5 h4 29 Kd4 Kf4! 29 Rb3! and 30 Ke3.

22 ... f5
23 a6 Ra3
24 Kb7 f4
25 a7 f3
26 Rg5+!

This can be considered the "winning move" (although it is one of many), because this is the last point at which White could have easily gone wrong. The wrong way was 26 a8(Q)? Rxa8 27 Kxa8 because Black's king can do enough damage to draw (27 ... f2! 28 Rb1 Kf5 29 Rf1 Kg4 30 Rxf2 Kxh4 and ... Kg3 plus ... h4-h3).

26 ... Kf6

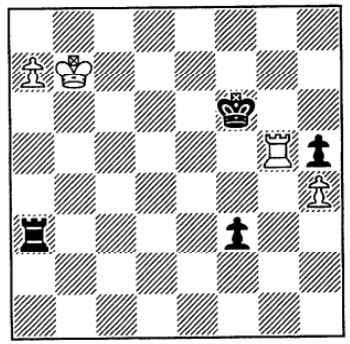

Diagram 243

Now 27 a8(Q)?? Rxa8 28 Kxa8 f2! is a horrendous reversal of fortune: Black wins.

27 Rg3!

White uses tactics—a pin—to stop the f-pawn. It's true Black can play 27 ... f2 anyway. But then the simplest way to win is to use more tactics—28 a8(Q)! f1(Q) 29 Qf8+ and 30 Qxf1, or 28 ... Rxa8 29 Rf3+! and Kxa8.

27 ... Rb3+
28 Kc7 Rc3+
29 Kb6 Rb3+
30 Kc5 Rc3+
31 Kd4!

Black had nothing left but checks, and this exhausts them. Now 31 ... Ra3 allows another tactical trick, 32 Rxf3+! and queens.

31 ... Rc8
32 Rxf3+ Ke6
33 Ra3 Resigns

Black could have soldiered on with 33 ... Ra8. But, after 34 Kc5 Kd7 35 Kb6 Kc8, White can win the rook by a variety of means (36 Kc6 Kd8 37 Kb7, or 36 Rg3 Kd7 37 Kb7). And once he wins the rook, well, it really is just a matter of technique.

Solutions to Quizzes

CHAPTER TWO:

Gurevich–Davies, Diagram 34:

Black's position is held together by the queen. After 1 Qd4! (or 1 Qd1! first) Black collapses. The game went 1 Qd1 g6 2 Qd4! and White began picking up pawns (2 ... Qxd4 3 Bxd4 b5 4 Nc3 b4 5 axb4 axb4 6 Nxe4 Ng7 7 Ke2 Nf5 8 Kd3 Resigns).

Petrosian–Taimanov, Diagram 35:

White wins. Black had to play 1 ... fxe6 instead because after the trade of queens White swapped rooks as well, 3 Rd1! Rxd1 4 Kxd1, after which his a-pawn queens first (4 ... g5 5 a4 g4 6 a5 g3 7 Ke2, or 4 ... Kg7 5 a4 h5 6 a5 h4 7 a6).

Geller–A. Petrosian, Diagram 36:

Much better. On 1 Qa3? Qg6! Black is alive. But, 1 Bxe4! Rxd6 2 Rxd6 wins quickly because of the threat of Bd5.

Play continued 2 ... Qf6 3 g3 Kf8 4 Bd5 Qa1+ 5 Kg2 Nc7 6 Rd8+ Resigns (6 ... Ke7 7 Bg5+). Sometimes a queen sacrifice is the equivalent of a good queen trade.

Fritz–Morozevich, Diagram 37:

The computer saw 1 d6! cxd6 (Not 1 ... Qxd6?? 2 Qxf7+ or 1 ... Bxd6? 2 Qxg6) 2 Qc8+ Qf8 (Or 2 ... Kh7 3 Bxb6 and now 3 ... Bc3 or 4 Qa8! or 3 ... Bd4!? 4 Bxd4 Qe4+ 5 Kh2 Qxd4 6 Qf5!, winning a pawn) 3 Qxf8+ Kxf8 4 Bxb6.

But, it didn't consider the position after 4 ... Bc3 to be particularly advantageous for White (!). A human master would recognize White's superiority as clear and close to a win. For example, 5 f4 or 5 Kf3 Ne5+ 6 Ke4 Nxc4 7 bxc4 and 8 Kd5.

CHAPTER THREE:

Ivanchuk–Pomes, Diagram 78:

1 Qxh7? is a blunder that throws away some of his chances after 1 ... Qc1+ and 2 ... Qxg5(+). But 1 Qxc6! bxc6 2 h4 won swiftly because of White's huge assets (including a potential passed g-pawn) and Black's liability (his awful knight), e.g. 2 ... Nb4?? 3 Bd6+.

Black loses quickly on 2 ... Kf7 3 Bd6! Kg6 4 Kf2 Kf5 5 b4 Kg4 6 a4 and 7 b5. He tried 4 ... e5 5 dxe5 Kf5 6 b4 c5, but resigned soon after 7 Bxc5 Kxe5 8 a3 Nc7 9 Bxa7.

Tiviakov–Jannsen, Diagram 79:

White eliminates it with 1 Nc3+ and 2 Ne2! and plays without an opponent.

The game went 1... Kc6 2 Ne2 Kb5 3 Kc3 Kb6 4 Kc4 Kc6 5 b5+ Kb6 6 Kb4 Kb7 7 Ka5 Ka7 8 b6+ Kb7 9 Kb5 Kb8 10 Ka6 Resigns—because of 10 ... Ka8 11 Nd4! Bxg3 12 Nc6 and 13 b7 mate.

CHAPTER FOUR:

Magomedov–Barua, Diagram 102:

Black has excellent drawing chances after 1 ... Bg7! 2 Bxg7 Kxg7 because of the renowned defensive possibilities in rook endings. On the other hand, bishop endings are much easier to win with an extra pawn, and the game was lost after 1 ... b5? 2 Re5! Rxe5 3 Bxe5 Kf5 4 Bd4 a5 5 Kg2 Be7 (or 5 ... Kc4 6 Bf6) 6 Kf3 a4 7 g4+ Ke6 8 Ke4.

Cherepkov–Chepukaitis, Diagram 103:

Black threatens to untangle with 1 ... Bc6, so that 2 Rb8+ Kg7. In the game White forced matters with 1 Rb8? Rxa7 2 Rxe8+ Kg7 but only drew a long game.

Correct was 1 d5!, leaving Black completely bound because ... Rd8 always loses to Rb8. White can win in a variety of ways, the easiest being bringing his king to b6.

Ftáčnik–Narciso Dublan, Diagram 104:

After 1 Kd3! The bishop is almost out of squares. For example, 1 ... Ba1 2 Kc4 threatens 3 Kb3 and leads to 3 ... Ra3 4 Rd3! Rxd3 5 Kxd3 with play like the game.

The rook doesn't help, e.g. 1 ... Ra3 2 Kc2 Ba1 3 Bb6 (threatening to trade rooks with Rd3) Rc3+ 4 Kb1 Rc6 5 Ba5 Bc3 6 Rc1 and 7 b5 wins.

The game went 1 ... Bb2 2 Kc2!, threatening 3 Kb3, and then 2 ... Ra1 3 Rxa1 Bxa1, and now faster than Kd3-c4-d5 was 4 b5! axb5 5 Kb1, winning the bishop.

CHAPTER FIVE:

Tal–Spraggett, Diagram 123:

Black wins in a straightforward manner after 1 ... Qe3+ 2 Kh2 Qg5 or just 2 ... Qf2+ 3 Kh3 Qxc5.

However, he tried a combination, 1 ... Bf5?, based on 2 gxf5 Qg4+ or 2 Nxf5 Qxg4+. After 2 Nxf5 Qxg4+ 3 Kh2 Qxf5 4 c6! the win was gone since 4 ... Qxd7 5 cxd7 Ne6 6 Kh3 Kg6 7 Kh4 allows White to queen if the knight is used to advance the h-pawn.

The game ended soon after 4 ... Kg6 5 Qd6+ Qe6 6 Qg3+ Kh6 7 c7 Nf5 8 Qc3 Nd6 9 Qc6! Qe2+ 10 Kh1 Qd1+ 11 Kg2.

Pelletier–Rozentalis, Diagram 124:

Black should try to queen, of course. After 1 ... f4! 2 Ra4 Rb2 3 gxf4 g3! 4 fxg3 e3 he has both a strong e-pawn and a route for his king to support its advance.

Play continued 5 f5 Ke4 6 f6 Kf3 7 Ra1 Rg2! and White resigned in view of 8 f7 e2+ 10 Ke1 Ke3 and 11... Rg1 mate, or 8 Re1 e2+ 9 Rxe2 Rxe2 10 f7 Rf2+.

Pogorelov–Bosque, Diagram 125:

No draw. White can use his extra pawn to create a mismatch on the queenside with 1 f4+! gxf4 2 exf4+ Kxf4 3 Kd4. For example, 3 ... Bg8 4 Kc5 Be6 5 Kxb5 d4 6 Kxb4 Ke3 7 g5 Bf7 8 a4.

Or 3 ... Be6 4 Be2! (zugzwang) Bf7 5 Kc5 Ke3 6 Bxb5 d4 7 Kxb4 d3 8 Bxd3! Kxd3 9 a4 Ke4 10 a5 Kd5 11 Kb5 Kd6 12 b4 Kc7 13 Kc5 Kb7 14 b5 Bg6 15 g5 Be4 16 Kd6 Bd3 17 b6 Be4 18 Ke5! Bd3 19 Kf6 and wins.

CHAPTER SIX:

Vitolinš–Kengis, Diagram 148:

White makes progress by breaking the blockade with 1 Rb5!.

After 1 ... Bxb5 2 cxb5 White wins, e.g. 2 ... Kf6 3 b6 Ra8 4 b7 Rb8 5 Be4, or 2 ... f5 3 Kb3 and 4 Kc4.

Black actually played 1 ... Ra7 and resigned after 2 Rxc5 Kf6 3 a5 Ke6 4 Ba4 Bxa4 5 Kxa4 Kd6 6 Rb5.

Cramling–Dončević, Diagram 149:

Since 1 a4 Kg5 and 1 Qd7+ Ke5 aren't convincing, White created a passed h-pawn with 1 Qxh7! Bc4 2 Qd7+ Kg5 3 h7.

Then 3 ... Qxf1+ 4 Kh2 Qxf2 would have been met by 5 Qh3 and White queens.

Play continued 3...

Bxf1 4 f4+! Kxf4 5 Qd4+ Kg5 6 h8(Q) Bd3+ 7 Kh2 Qc7+ 8 Kh1 Qc1+ 9 Qg1 Resigns.

CHAPTER SEVEN:

P. Nikolić–Anand, Diagram 163:

1 Na6! freezes Black's queenside pawns and knight and creates a potential winning king–difference.

If Black does nothing, White wins with Kd5. That means Black should try 1 ... Kg6 but after 2 f5+! Kg5 3 f6 h5 White's king decides.

He can win in the long run with 4 Kd5 Nd8 5 Nxb4 but decided to take a little extra precaution with 4 h4+! Kg6 (on 4 ... Kxh4 5 e6! and a pawn promotes) 5 Kd5 Resigns.

Giardelli–Rustemov, Diagram 164:

The general idea is mate—1 ... e4! 2 fxe4 Nxe4 and now 3 Nxa7 g4 4 Rd8 Ng5 wins.

The game went 3 Rd4 Kf5! 4 Nxa7 (or 4 Nd6+ Nxd6 5 Rxd6 Kg4) Kg4 5 Nb5 Kf3! and White resigned. He could have held out longer by 5 Rxe4+ Kf3 6 h4 but would be lost after 6 ... Kxe4 7 hxg5 Kf3.

CHAPTER EIGHT:

Alekhine–Saemisch, Diagram 185:

If White tries to push the b-pawn, Black should have good chances of perpetual check. If White somehow trades queens, you should be able to visualize a Black defense: his knight blockades the b-pawn on b6, his king is centralized at d6 and his kingside pawns go to dark squares.

The best plan is to centralize the queen and then create a kingside weakness by advancing the pawns. The game went 1 Qd4! Qe7 2 Bd3 Qc7 3 g4! Kf7 4 h4 Nb6 5 h5, threatening hxg6+ and Qe4.

Black resigned after 5 ... gxh5 6 gxh5 Qc6 7 Be4 (not 7 Bxh7 Qxf3! 8 Qxb6 Qd1+ with perpetual check) Qb5 9 h6 Qb3 10 Bc2! Qd5 11 Qd3! Qxd3 12 Bxd3 Nc8 13 Bxh7.

Pigusov–Atalik, Diagram 186:

No. After 1 f3? Bxf3 2 Kf2 Bb7 3 Ke3 Black blundered with 3 ... Ke8?? 4 Bxe6 Kd8 5 b6! and lost.

But, he can hold with 3 ... Kf6 4 Kd4 e5+ 5 Ke3 and now 5 ... e4! 6 Kd4 Kf5 7 Kc5 Ke5 8 Kb6 Bd5. Black may even be better after 5 Kc5 e6 6 Kb6 Bd5 or 6 Kd6 e4 7 b6 Bd5 8 Be2 e3.

Also wrong is: 1 Bf1 Ke8 2 Bg2 Bd5 3 Bxd5 exd5 4 f4 gxf4 5 g4? d4 6 Kf1 d3 7 h4 f3. But 1f4 gxf4 2gxf4 and Kf2-e3 offers chances.

CHAPTER NINE:

Leko–Anand, Diagram 209:

After 1 ... Ra1 White can run to the queenside after 2 Kg2 and 3 f3, 4 Kf2 etc, e.g. 2 ... Ra2 3 Kf1!.

But on 1 ... Rc4 he can't afford 2 f3? because of 2 ... Rc2!, and the king is cut off. White also has problems after 2 f4 Rc3+! 3 Kf2 gxf4 4 Rxf4 Ra3. The best try is 2 Kf3 Ra4 3 Ke3! Rxg4 4 Kd3.

Averbakh–Euwe, Diagram 210:

1 ... Ra2+! 2 Kf3 Kf7 draws because White can't afford to begin the queenside trip and give up his kingside. But 1 ... Rg3?? lost because of 2 Rg5! Ra3 3 a5 and White's rook defends the base-pawn.

After 3 ... Kf7 4 Kd2 Ke7! 5 Kc2! Kd6 6 Kb2 Ra4 7 g3 Black soon fell into zugzwang and resigned after 7 ... Kc6 8 Kb3 Ra1 9 Kb4 Rb1+ 10 Kc4! Ra1 11 Kb3! (because of 11 ... Kd6 12 Kb4 and Kb5).

Spassky–Antoshin, Diagram 211:

1 Kd4! Rxf2 2 Re7! wins because White's king is close enough to the b-pawn, Black's king is cut off and the White base-pawn at g3 is safe after 2 ... Rb2 3 Kc4 Kf6 4 Re3!.

On the third rank, White's rook is also available for 4 ... Kf5 5 Rb3! since the pawn ending is won.

Black tried 5 ... Rc2+ 6 Kd5 Kg4 7 b6 Rc8 8 b7 Rb8, but he was losing after 9 Ke5 f5 10 Kf6 f4 11 gxf4 Kxh4 12 Kxg6 Kg4 13 f5.

CHAPTER TEN:

Bareev–Karpov, Diagram 232:

1 Bf1 would have liquidated the queenside and made a draw very likely because of the absence of queenside pawns. But 1 a5?, which White chose, gives Black the better chances after 1 ... Bb5.

After 2 Bf1 Bxf1 White found himself quickly lost—3 Kxf1 Qc4+ 4 Kg1 Nf6! 5 f3 Nh5 6 Bb8 Qc3 7 g4 Nf6 8 Qd8+ Kh7 9 Kg2 Qb2+ 10 Kg1? Qe2 and White resigned because his kingside pawns begin to fall.

Salov–Anand, Diagram 233:

1 ... Rc1? allows 2 Qxc1 Bxc1 3 Nxc1 with a fortress.

Black has better chances with 1 ... Qh2+! 2 Kf3 Rc8. He won after 3 Qb1? (better is 3 Re7) Bc1! 4 Nxc1 Qh1+, e.g. 5 Kf2 Rxc1 6 Qd3 Rg1 followed by mate or win of material, or 5 Ke2 Rxc1 6 Qb3 Qg2+ 7 Kd3 Qc6.

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